Test 1

Total mark
5

1 Choose the correct answer : (3 marks)

1. $1 - \frac{1}{3} - \frac{1}{5} =$ ....

   ⓐ $\frac{7}{20}$ ⓑ $\frac{7}{15}$

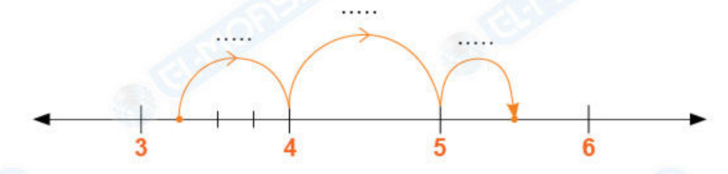
   ⓒ $\frac{12}{17}$ ⓓ $\frac{5}{8}$

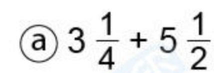
2. If $5\frac{n}{18}$ is about 5 , then n may be ....

   ⓐ 8 ⓑ 17

   ⓒ 2 ⓓ 12

3. The opposite number line is used to solve the problem ....





   ⓐ $3\frac{1}{4} + 5\frac{1}{2}$ ⓑ $3\frac{1}{4} - 2\frac{1}{2}$

   ⓒ $5\frac{1}{2} - 3\frac{1}{4}$ ⓓ $5\frac{1}{4} + 3\frac{1}{2}$

2 Nancy spends $\frac{2}{7}$ of her salary for food and uses $\frac{1}{2}$ of her salary for paying the house rent. What fraction of salary is left ? (2 marks)

....

....

....

....

Test 2



1 Choose the correct answer : (3 marks)

1. $2\frac{1}{3}$ hours = ... minutes

   ⓐ 150 ⓑ 120

   ⓒ 130 ⓓ 140

2. $X + 4\frac{1}{4} = 5\frac{1}{2}$, then X = ...

   ⓐ $\frac{1}{2}$ ⓑ $\frac{1}{4}$

   ⓒ $1\frac{1}{2}$ ⓓ $1\frac{1}{4}$

3. Which of the following is underestimate ?

   ⓐ $\frac{3}{4} + \frac{3}{8}$ is about $1\frac{1}{2}$ ⓑ $\frac{5}{8} + \frac{4}{7}$ is about 1

   ⓒ $\frac{4}{5} + \frac{2}{5}$ is about $1\frac{1}{2}$ ⓓ $\frac{3}{7} + \frac{4}{10}$ is about 1

---

2 Zeiad walked $1\frac{3}{4}$ km, Ahmed walked $\frac{1}{5}$ km more than Zeiad and Ramy walked $\frac{3}{10}$ km less than Ahmed.

How many km Ramy walked ? (2 marks)

....

....

....

....

Test 3



1 Choose the correct answer : (3 marks)

1. Which of the following is not equivalent to $\frac{15}{20}$?

   (a) $\frac{3}{4}$ (b) $\frac{30}{40}$

   (c) $\frac{25}{100}$ (d) $\frac{9}{12}$

2. Using the fraction tiles , the sum of : $\frac{2}{3} + \frac{5}{6} =$ ....

   (a) $1\frac{1}{2}$ (b) $\frac{7}{9}$

   (c) $\frac{4}{3}$ (d) $\frac{11}{6}$

3. $1\frac{4}{5} - 1\frac{1}{20} =$ ....

   (a) $\frac{7}{20}$ (b) $\frac{4}{3}$

   (c) $\frac{3}{4}$ (d) $1\frac{1}{5}$

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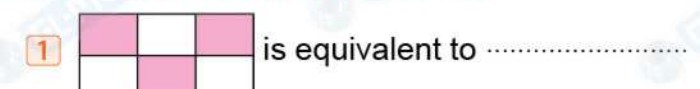
2 Estimate the sum and the difference using the benchmarks 0 , $\frac{1}{2}$ and 1 (2 marks)

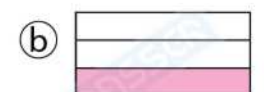
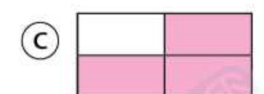
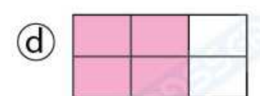
1. $\frac{7}{8} - \frac{1}{5} =$ ....
2. $\frac{5}{9} + \frac{4}{7} =$ ....

Test 4



1 Choose the correct answer : (3 marks)

1)  is equivalent to ....

ⓐ  ⓑ  ⓒ  ⓓ 

2) $\frac{3}{4}$ year = ... months

ⓐ 3 ⓑ 6 ⓒ 9 ⓓ 12

3) $9\frac{4}{7} - 9\frac{1}{7}$ = ...

ⓐ 0 ⓑ $9\frac{3}{7}$ ⓒ $\frac{3}{7}$ ⓓ $1\frac{2}{7}$

2 Marwan studied math for $3\frac{1}{2}$ hours and science for 90 minutes.

How many hours did Marwan study in all ? (2 marks)



Test 5



1 Choose the correct answer : (3 marks)

1. $2\frac{1}{3} + 1\frac{2}{5}$ can be rewrite as ....

   (a) $\frac{6}{3} + \frac{5}{5}$ (b) $\frac{7}{3} + \frac{5}{7}$

   (c) $(2 + 1) + (\frac{1}{3} + \frac{2}{5})$ (d) $3\frac{1}{2} + 5\frac{1}{2}$

2. Two fractions $3\frac{2}{3}$ and $5\frac{1}{6}$ with like denominators are ....

   (a) $3\frac{2}{3}$ and $5\frac{1}{6}$ (b) $\frac{11}{3}$ and $\frac{31}{3}$

   (c) $3\frac{4}{6}$ and $5\frac{1}{6}$ (d) $3\frac{2}{3}$ and $5\frac{2}{6}$

3. $\frac{5}{12} + \frac{1}{4}$ ◯ $\frac{1}{3} + \frac{1}{4}$

   (a) > (b) < (c) =

2 Use an area model to add. (2 marks)

$2\frac{3}{5} + 1\frac{1}{2} =$ ....



Answers of Test 1

1 (1) b (2) c (3) c

2 Nancy spent = $\frac{2}{7} + \frac{1}{2} = \frac{4}{14} + \frac{7}{14} = \frac{11}{14}$ of her salary

The left = $1 - \frac{11}{14} = \frac{14}{14} - \frac{11}{14} = \frac{3}{14}$ of her salary.

Another solution :

The left = $1 - \frac{2}{7} - \frac{1}{2} = \frac{14}{14} - \frac{4}{14} - \frac{7}{14} = \frac{3}{14}$ of her salary

Answers of Test 2

1 (1) d (2) d (3) b

2 Ahmed walked = $1\frac{3}{4} + \frac{1}{5} = 1\frac{15}{20} + \frac{4}{20} = 1\frac{19}{20}$ km

Ramy walked = $1\frac{19}{20} - \frac{3}{10} = 1\frac{19}{20} - \frac{6}{20} = 1\frac{13}{20}$ km

Answers of Test 3

1 (1) c (2) a (3) c

2 (1) $1 - 0 = 1$ (2) $\frac{1}{2} + \frac{1}{2} = 1$

Answers of Test 4

1 (1) a (2) c (3) c

2 The total time = $3\frac{1}{2}$ hours + 90 minutes = $3\frac{1}{2} + 1\frac{1}{2} = (3 + 1) + \left(\frac{1}{2} + \frac{1}{2}\right)$

$= 4 + 1 = 5$ hours.

Answers of Test 5

1 (1) c (2) c (3) a

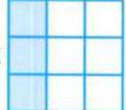
2 [shaded model] + [shaded model] $= 3\frac{11}{10} = 4\frac{1}{10}$

Cumulative Assessments on UNIT 7

Cumulative Assessment 1 On lesson (1) unit 7

1. Complete the following.

a. The LCM of denominators of $\frac{5}{7}$ and $\frac{3}{4}$ is ________

b. The shaded part  represents $\frac{__}{3}$

c. The smallest like denominator of $\frac{5}{6}$ and $\frac{3}{4}$ is ________

d. $\frac{7}{12} - \frac{3}{12} =$ ________ e. $1 - \frac{1}{8} =$ ________ f. $\frac{5}{8} +$ ________ $= \frac{3}{4} + \frac{1}{4}$

2. Choose the correct answer from these ones.

a. The simplest form of $\frac{12}{18}$ is ________

A. $\frac{2}{8}$ B. $\frac{2}{3}$ C. $\frac{18}{12}$ D. 1

b. The LCM of denominators of $\frac{1}{2}$ and $\frac{3}{10}$ is ________

A. 1 B. 2 C. 3 D. 10

c. Which of the following is correct ?

A. $\frac{3}{4} = \frac{4}{3}$ B. $\frac{5}{8} = \frac{15}{18}$ C. $\frac{1}{2} = \frac{6}{12}$ D. $\frac{3}{5} = \frac{5}{7}$

d. The two fractions $\frac{1}{5}$ and $\frac{1}{4}$ are equivalent to the two common denominator fractions ________

A. $\frac{4}{5}$ and $\frac{5}{4}$ B. $\frac{4}{9}$ and $\frac{5}{9}$ C. $\frac{4}{45}$ and $\frac{5}{45}$ D. $\frac{5}{20}$ and $\frac{4}{20}$

e. $\frac{3}{7} + \frac{4}{7} =$ ________

A. $\frac{7}{14}$ B. 1 C. $\frac{34}{77}$ D. $1\frac{7}{7}$

f. $\frac{5}{15}$ ________ $\frac{1}{3}$

A. $>$ B. $<$ C. $=$

3. a. Mazen ate $\frac{1}{2}$ of a pizza and Essam ate $\frac{1}{3}$ of the same pizza.
Write their fractions with like denominators using a visual model.

____

b. Essam spent $\frac{1}{6}$ of his salary for renting a flat and $\frac{3}{4}$ of his salary for eating and clothing.
Write their fractions with like denominators.

____

Cumulative Assessment 2 Till lessons (2 & 3) unit 7

1. Complete the following.

a. The shaded part of  represents $\frac{\ }{2}$

b. $\frac{3}{4} - \frac{1}{4} = \frac{\ }{2}$

c. $\frac{7}{8} + \frac{2}{5}$ is estimated as 1 + ______

d. The LCM of denominators of $\frac{3}{4}$ and $\frac{3}{5}$ is ______

2. Choose the correct answer from these ones.

a. Which of the following is overestimate ?

A. $\frac{9}{8} + \frac{1}{3}$ is about 1

B. $\frac{1}{7} + \frac{1}{4}$ is about 0

C. $\frac{2}{5} + \frac{3}{8}$ is about 1

D. $\frac{10}{12} + \frac{4}{5}$ is about 1

b. By using the fraction tiles , the difference $\frac{1}{2} - \frac{1}{5} =$ ______

A. $\frac{1}{3}$ B. $\frac{3}{10}$ C. $\frac{1}{4}$ D. $\frac{1}{7}$

c. Estimate the sum of $\frac{3}{5} + \frac{7}{8}$ using benchmarks , the sum is ______

A. 2 B. $1\frac{1}{2}$ C. 1 D. $\frac{1}{2}$

d. $\frac{1}{6} + \frac{6}{7}$ is estimated as ______

A. $\frac{1}{2} + \frac{1}{2}$ B. $0 + 1$ C. $0 + \frac{1}{2}$ D. $\frac{1}{2} + 1$

3. Estimate the sum using the benchmarks, then indicate whether the estimation is overestimate or underestimate.

a. $\frac{2}{5} + \frac{3}{7}$

b. $\frac{7}{12} + \frac{12}{11}$

c. $\frac{1}{3} + \frac{1}{9}$

d. $\frac{9}{10} + \frac{8}{9}$

4. Use the fraction tiles to evaluate each sum or difference.

a. $\frac{7}{10} - \frac{1}{2}$

b. $\frac{2}{4} - \frac{2}{8}$

c. $\frac{3}{10} - \frac{1}{5}$

d. $\frac{5}{8} + \frac{1}{4}$

Cumulative Assessment 3 Till lessons (4 & 5) unit 7

1. Complete the following.

a. $1-\frac{1}{3}-\frac{2}{5}=$ ________

b. Using benchmarks, $\frac{8}{9}-\frac{1}{7}=$ ________ − ________ = ________

c. $\frac{6}{7}+\frac{1}{42}=$ ________

d. $\frac{1}{6}+\frac{5}{8}=$ ________

e. [shaded model] + [shaded model] = ________

f. $\frac{7}{12}+\frac{9}{10}$ is estimated as ________

2. Choose the correct answer from these ones.

a. [shaded model] + [shaded model] = ________

A. $\frac{8}{12}$ B. $\frac{7}{12}$ C. $\frac{7}{6}$ D. $\frac{5}{6}$

b. $\frac{3}{4}-\frac{3}{5}=$ ________

A. $\frac{3}{20}$ B. $\frac{3}{1}$ C. $\frac{27}{20}$ D. 1

c. $1+\frac{7}{10}+\frac{1}{5}=$ ________

A. $\frac{9}{15}$ B. $\frac{9}{10}$ C. $\frac{19}{10}$ D. $9\frac{1}{10}$

d. $\frac{5}{8}+\frac{1}{2}=1+$ ________

A. $\frac{1}{2}$ B. $\frac{1}{8}$ C. $\frac{1}{5}$ D. $\frac{3}{4}$

e. Which of the following is not equivalent to $\frac{6}{8}$?

A. $\frac{3}{4}$ B. $\frac{60}{80}$ C. $\frac{12}{18}$ D. $\frac{30}{40}$

f. When estimate the sum of $\frac{1}{4}+\frac{11}{10}$ is about 1, the estimation is ________

A. Overestimate. B. Underestimate.

3. Estimate each sum or difference, then evaluate each expression by rewriting the fractions with like denominators.

a. $\frac{11}{12}+\frac{7}{8}$ b. $\frac{5}{6}+\frac{2}{3}$ c. $\frac{9}{10}-\frac{1}{5}$ d. $\frac{3}{7}-\frac{1}{8}$

Cumulative Assessment  Till lesson (6) unit 7

1. Choose the correct answer from these ones.

a. $\frac{9}{12} - \frac{5}{12} =$ ______

A. 4 B. $\frac{1}{3}$ C. $\frac{14}{12}$ D. $\frac{1}{4}$

b. $1 - \frac{1}{2} - \frac{1}{3} =$ ______

A. $\frac{1}{2}$ B. $\frac{1}{3}$ C. $\frac{1}{5}$ D. $\frac{1}{6}$

c. The GCF of numerator and denominator of $\frac{27}{18}$ is ______

A. 1 B. 3 C. 9 D. 18

d. $\frac{1}{4} + \frac{8}{9}$ is estimated as ______

A. 0 B. $\frac{1}{2}$ C. 1 D. $1\frac{1}{2}$

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2. Marvina has a full bottle of juice. If she drinks $\frac{4}{7}$ of the juice and her sister drinks $\frac{2}{5}$ of the juice. **How much juice is left in the bottle ?**

______

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3. Sandy made two types of cookies. She used $\frac{2}{3}$ cup of sugar for one recipe and $\frac{1}{4}$ cup of sugar for the other. **How much sugar did she use in all ?**

______

---

4. Youssef went out for a long walk. Youssef walked $\frac{3}{4}$ kilometers and then sit down to take a rest , then Youssef walked $\frac{3}{8}$ kilometers. **How far did Youssef walk altogether ?**

______

---

5. An octopus weighed $\frac{5}{6}$ kilogram. After two weeks , its weight was increased by $\frac{3}{10}$ kilogram but afterwards , it lost $\frac{1}{5}$ kilogram of its weight as it was sick. **What is the weight of the octopus now ?**

______

Cumulative Assessments on UNIT 8

Cumulative Assessment 5 Till lessons (1 to 3) unit 8

1. **Find the result of each of the following.**

a. $7\frac{2}{7}+1\frac{3}{7}=$ ________

b. $2\frac{1}{4}-1\frac{3}{4}=$ ________

c. $2\frac{5}{6}+3\frac{1}{6}=$ ________

d. $1\frac{7}{9}-1\frac{4}{9}=$ ________

2. **Choose the correct answer from these ones.**

a. $1\frac{5}{11}+2\frac{1}{8}$ estimate as ________

A. $1+2$ B. $1+2\frac{1}{2}$ C. $1\frac{1}{2}+2$ D. $2+2$

b. If $5\frac{1}{4}-4\frac{a}{4}=\frac{3}{4}$, then $a=$ ________

A. 1 B. 2 C. 3 D. 4

c. The mixed number $2\frac{1}{7}$ can be regrouped as ________

A. $1\frac{8}{7}$ B. $2\frac{8}{7}$ C. $1\frac{1}{14}$ D. $1\frac{7}{8}$

d. $1\frac{1}{2}+7\frac{1}{2}=$ ________

A. $8\frac{1}{2}$ B. 9 C. 8 D. $8\frac{1}{4}$

3. **Rewrite the given two mixed numbers with like denominators.**

a. $1\frac{2}{5}$ and $3\frac{28}{35}$

b. $2\frac{3}{4}$ and $2\frac{8}{30}$

c. $4\frac{4}{6}$ and $3\frac{3}{15}$

d. $3\frac{1}{7}$ and $1\frac{8}{14}$

4. **Complete the following.**

a. If $X+2\frac{1}{8}=5\frac{3}{8}$, then $X=$ ________

b. $8\frac{2}{3}+1\frac{5}{6}$ is estimated as ________ + ________

c. If $\frac{23}{5}$ is equivalent to $m\frac{3}{5}$, then $m=$ ________

d. If $y-3\frac{1}{4}=3\frac{3}{4}$, then $y=$ ________

Cumulative Assessment  Till lessons (4 to 6) unit 8

1. Choose the correct answer from these ones.

a. If $2\frac{1}{4} - n = \frac{3}{4}$, then n = ...

A. 2 B. $\frac{3}{4}$ C. 3 D. $1\frac{1}{2}$

b. If $5\frac{1}{4} + 2\frac{3}{4} = X - \frac{1}{3}$, then X = ...

A. $8\frac{1}{3}$ B. 8 C. $7\frac{3}{4}$ D. $7\frac{2}{3}$

c. Which of the following is overestimate ?

A. $\frac{2}{5} + \frac{3}{7}$ is about 1 B. $\frac{5}{6} + \frac{5}{7}$ is about 1

C. $\frac{7}{8} + \frac{1}{3}$ is about 1 D. $\frac{11}{10} + \frac{7}{6}$ is about 2

d. The equivalent fraction of $\frac{3}{6}$ is ....

A. $\frac{3}{5}$ B. $\frac{2}{6}$ C. $\frac{15}{30}$ D. $\frac{2}{5}$

2. Complete the following.

a. [fraction model] + [fraction model] = ...

b. If $3\frac{1}{5} - 2\frac{3}{5} = a\frac{6}{5} - 2\frac{3}{5}$, then a = ...

c. If $5\frac{3}{7} - 1\frac{4}{7} = 5\frac{6}{7} - a$, then a = ...

d. $5\frac{1}{4} + 3\frac{2}{9} =$ ....

3. Use the number line to find the difference.

a. $4\frac{1}{3} - 1\frac{1}{2}$ b. $6\frac{4}{5} - 4\frac{1}{4}$

4. Hany collected $5\frac{1}{4}$ kilograms of honey. He gave his brother $2\frac{3}{7}$ kilograms of them.

How many kilograms are left ?

....

Cumulative Assessment 7 Till lessons (7 & 8) unit 8

1. Choose the correct answer from these ones.

a. $5 - \frac{1}{2} - \frac{1}{3} =$ ....

A. $4\frac{5}{6}$ B. $4\frac{1}{2}$ C. $4\frac{1}{6}$ D. $4\frac{3}{4}$

b. If $3\frac{1}{7} = 2\frac{X}{7}$ by regrouping, then X = ...

A. 1 B. 2 C. 3 D. 8

c. $2\frac{1}{2}$ days = ... hours.

A. $\frac{5}{2}$ B. 48 C. 36 D. 60

d. The simplest form of $\frac{24}{36}$ is ....

A. $\frac{12}{18}$ B. $\frac{6}{9}$ C. $\frac{8}{12}$ D. $\frac{2}{3}$

2. Marwan ate $1\frac{1}{2}$ pieces of chocolate. His friend Wael ate $\frac{3}{4}$ pieces of chocolate more than him. **How many pieces did they eat together ?**

3. Complete the following.

a. $\frac{1}{5}$ minute = ... seconds.

b. $2\frac{1}{4}$ years = ... months.

c. 18 hours = ... day.

d. 200 minutes = ... hours.

e. $5\frac{1}{2} - \frac{3}{4} =$ ....

f. $2\frac{1}{4} + 2\frac{1}{4} =$ ....

4. Jack bought $1\frac{1}{4}$ kg of tomato and $\frac{1}{2}$ kg of onion. His sister Julia bought $2\frac{3}{4}$ kg of fruits. **How many kilograms did they buy ?**

5. In first day, Youssef run for $1\frac{1}{2}$ hours. In second day, he run for $1\frac{3}{8}$ hours. In third day, he run for 80 minutes. **How long did Youssef run in the three days ?**



Mathematics

الصف 5 الابتدائى

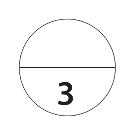
مقترح النماذج الاسترشادية لشهر مارس

العام الدراسى 2022 - 2023



Model (1)

1 Choose the correct answer:



a The fraction which represents the colored part in the 

opposite model = ...

- $\frac{2}{4}$
- $\frac{4}{6}$
- $\frac{1}{6}$
- $\frac{2}{6}$

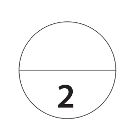
b The simplest form of $2\frac{4}{16}$ is ....

- $1\frac{1}{4}$
- $2\frac{2}{4}$
- $\frac{1}{4}$
- $2\frac{1}{4}$

c $7\frac{3}{4} + 1\frac{1}{2} =$ .... (in its simplest form)

- $8\frac{8}{10}$
- 9
- $9\frac{1}{8}$
- $9\frac{1}{4}$

2 Find the result of each of the following:



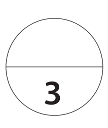
a $1\frac{9}{5} + 2\frac{11}{5} =$ ....

b $4\frac{3}{5} - 2\frac{1}{3} =$ ....

5 Marks

Model (2)

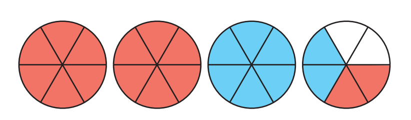
1 Choose the correct answer:



a $2\frac{1}{4} =$ ....

- $2\frac{4}{8}$
- $2\frac{4}{16}$
- $1\frac{1}{2}$
- $1\frac{2}{8}$

b The following model represents ....

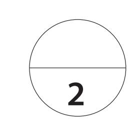


- $3\frac{2}{6} + \frac{2}{6} = 3\frac{2}{6}$
- $2\frac{1}{3} + 1\frac{1}{6} = 3\frac{2}{6}$
- $2\frac{1}{6} + 1\frac{2}{6} = 3\frac{1}{2}$
- $2\frac{2}{6} + 1\frac{2}{6} = 3\frac{2}{3}$

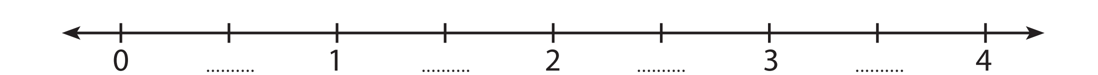
c If $\frac{4}{20} = \frac{1}{x}$ then $x =$ ....

- 2
- 3
- 4
- 5

2 Answer the following:



a Fill in the missing fractions on the number line:



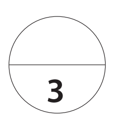
b Find the result by renaming the fractions using LCM:

- $\frac{5}{8} - \frac{1}{2} =$ ....



Model (3)

1 Choose the correct answer:



a) $6 - \text{.........} = 5\frac{1}{4}$

- $\frac{1}{4}$
- $\frac{2}{4}$
- $\frac{3}{4}$
- $1\frac{1}{4}$

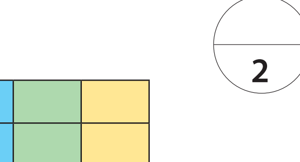
b) The common denominator for the two fractions $2\frac{4}{5}$ and $1\frac{3}{4}$ may be ....

- 15
- 16
- 20
- 9

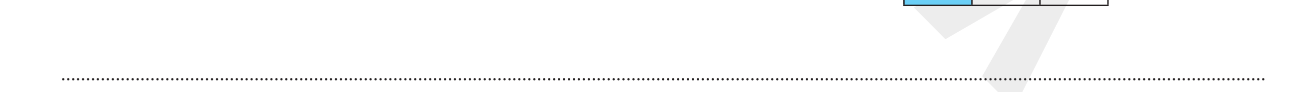
c) The estimation of $2\frac{6}{7} + 4\frac{7}{8}$ using the benchmark fractions is ....

- 5
- 6
- 7
- 8

2 Answer the following:



a) What is the fraction which represents the blue color?



b) What is the fraction which represents the blue and the green colors?

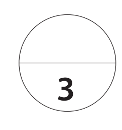
....



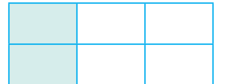
Model (1)

5 Marks

1 Choose the correct answer:



a The fraction which represents the colored part in the opposite model = ...



- $\frac{2}{4}$
- $\frac{4}{6}$
- $\frac{1}{6}$
- $\frac{2}{6}$

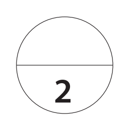
b The simplest form of $2\frac{4}{16}$ is ....

- $1\frac{1}{4}$
- $2\frac{2}{4}$
- $\frac{1}{4}$
- $2\frac{1}{4}$

c $7\frac{3}{4} + 1\frac{1}{2} =$ .... (in its simplest form)

- $8\frac{8}{10}$
- 9
- $9\frac{1}{8}$
- $9\frac{1}{4}$

2 Find the result of each of the following:



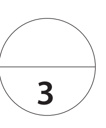
a $1\frac{9}{5} + 2\frac{11}{5} = 3\frac{20}{5} = 3 + 4 = 7$

b $4\frac{3}{5} - 2\frac{1}{3} = 4\frac{9}{15} - 2\frac{5}{15} = 2\frac{4}{15}$

5 Marks

Model (2)

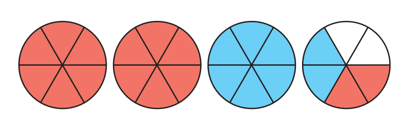
1 Choose the correct answer:



a $2\frac{1}{4} =$ ....

- $2\frac{4}{8}$
- $2\frac{4}{16}$
- $1\frac{1}{2}$
- $1\frac{2}{8}$

b The following model represents ....

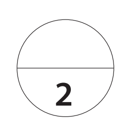


- $3\frac{2}{6} + \frac{2}{6} = 3\frac{2}{6}$
- $2\frac{1}{3} + 1\frac{1}{6} = 3\frac{2}{6}$
- $2\frac{1}{6} + 1\frac{2}{6} = 3\frac{1}{2}$
- $2\frac{2}{6} + 1\frac{2}{6} = 3\frac{2}{3}$

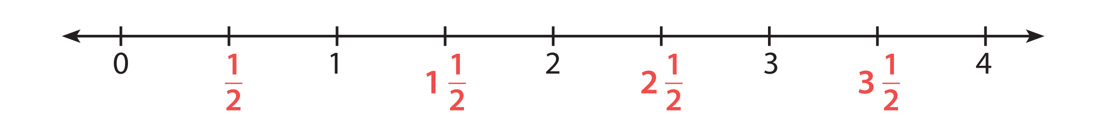
c If $\frac{4}{20} = \frac{1}{x}$ then $x =$ ....

- 2
- 3
- 4
- 5

2 Answer the following:



a Fill in the missing fractions on the number line:



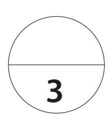
b Find the result by renaming the fractions using LCM:

- $\frac{5}{8} - \frac{1}{2} = \frac{5}{8} - \frac{4}{8} = \frac{1}{8}$

5 Marks

Model (3)

1 Choose the correct answer:



a $6 - \dots\dots = 5\frac{1}{4}$

- $\frac{1}{4}$
- $\frac{2}{4}$
- $\frac{3}{4}$
- $1\frac{1}{4}$

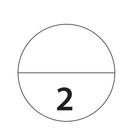
b The common denominator for the two fractions $2\frac{4}{5}$ and $1\frac{3}{4}$ may be ....

- 15
- 16
- 20
- 9

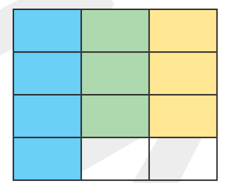
c The estimation of $2\frac{6}{7} + 4\frac{7}{8}$ using the benchmark fractions is ....

- 5
- 6
- 7
- 8

2 Answer the following:



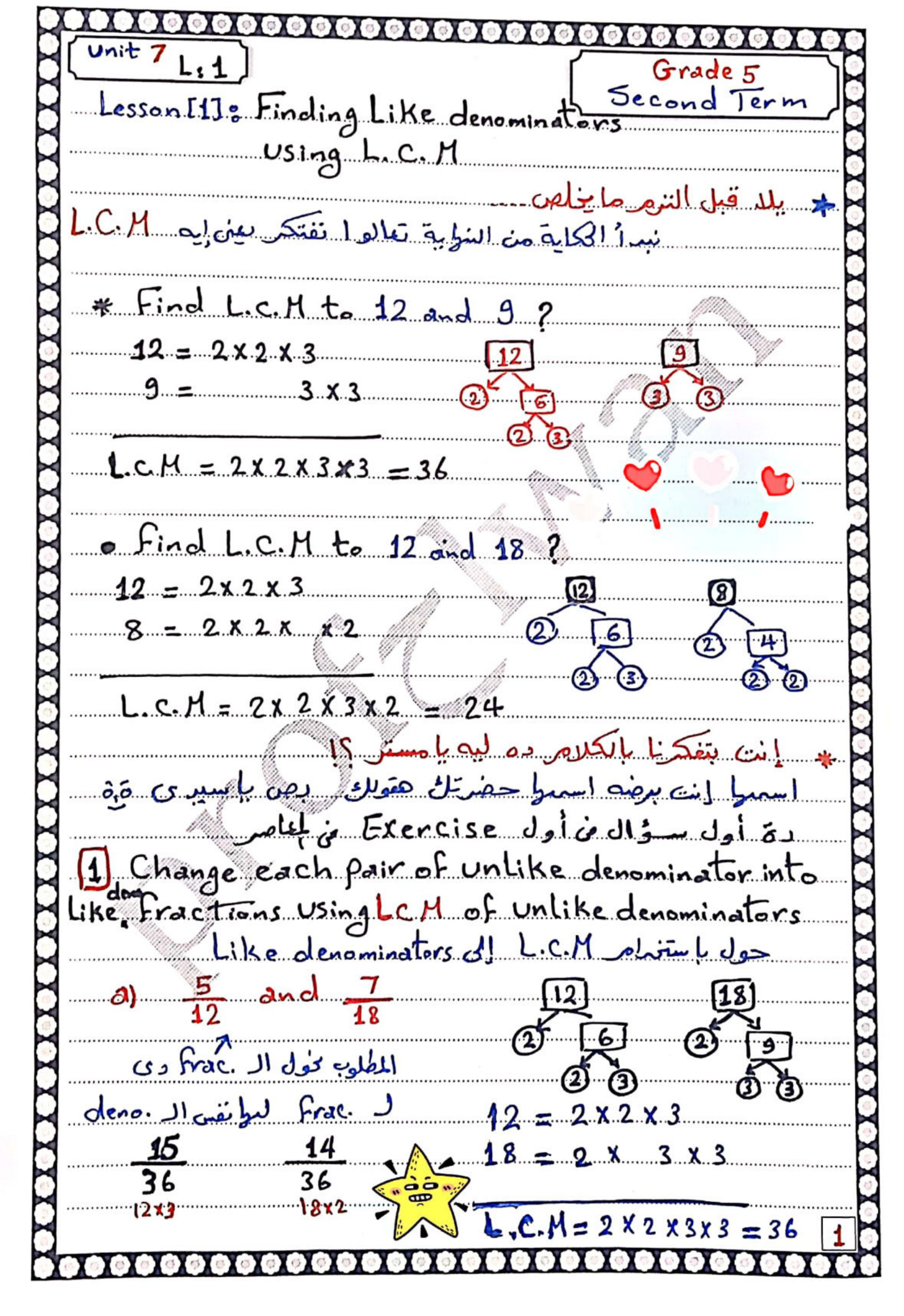
a What is the fraction which represents the blue color?



$\frac{4}{12} = \frac{1}{3}$

b What is the fraction which represents the blue and the green colors?

$\frac{4}{12} + \frac{3}{12} = \frac{7}{12}$



Lesson [1]: Finding Like denominators using L.C.M

* يلا قبل الترم مايخلص...

نبدأ الحكاية من البداية تعالوا نفتكر يعني إيه L.C.M

* Find L.C.M to 12 and 9 ?

12 = 2 x 2 x 3
9 = 3 x 3

L.C.M = 2 x 2 x 3 x 3 = 36

12 → 2, 6 → 2, 3
9 → 3, 3

• Find L.C.M to 12 and 18 ?

12 = 2 x 2 x 3
8 = 2 x 2 x x 2

L.C.M = 2 x 2 x 3 x 2 = 24

12 → 2, 6 → 2, 3
8 → 2, 4 → 2, 2

* إنت بتفكرنا بالكلام ده ليه يامستر؟!

اسمعوا إنت برضه اسمعوا حضرتك هقولك بص ياسيدي قرة

دة أول سؤال فى أول Exercise من الخاص

1 Change each pair of unlike denominator into like deno. fractions using L.C.M of unlike denominators

حول باستخدام L.C.M إلى Like denominators

a) $\frac{5}{12}$ and $\frac{7}{18}$

المطلوب تحول ال frac. دى

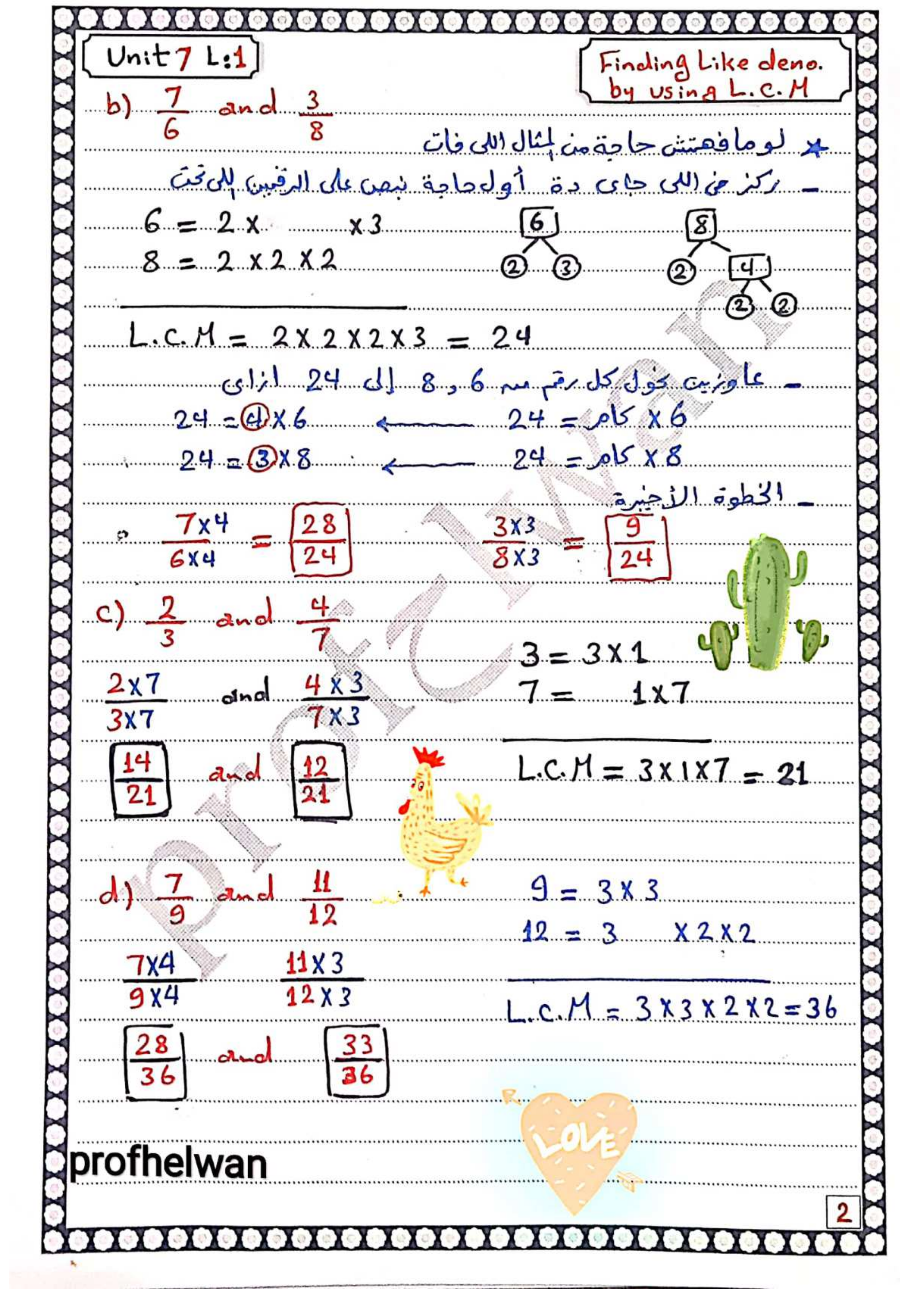
ل frac. لها نفس ال deno.

$\frac{15}{36}$ (12x3) $\frac{14}{36}$ (18x2)

12 → 2, 6 → 2, 3
18 → 2, 9 → 3, 3

12 = 2 x 2 x 3
18 = 2 x 3 x 3

L.C.M = 2 x 2 x 3 x 3 = 36



Finding Like deno. by using L.C.M

b) $\frac{7}{6}$ and $\frac{3}{8}$

* لو مافهمتش حاجة من المثال اللى فات
- ركز فى اللى جاى دة أول حاجة نبص على الرقمين اللى تحت

6 = 2 x   x 3
8 = 2 x 2 x 2

6 → 2, 3
8 → 2, 4 → 2, 2

L.C.M = 2 x 2 x 2 x 3 = 24

- عاوزين نحول كل رقم من 6 و 8 إلى 24 ازاى

24 = 4 x 6 ← 24 = كام x 6
24 = 3 x 8 ← 24 = كام x 8

- الخطوة الأخيرة

$\frac{7 \times 4}{6 \times 4} = \frac{28}{24}$ $\frac{3 \times 3}{8 \times 3} = \frac{9}{24}$

c) $\frac{2}{3}$ and $\frac{4}{7}$

3 = 3 x 1
7 = 1 x 7

L.C.M = 3 x 1 x 7 = 21

$\frac{2 \times 7}{3 \times 7}$ and $\frac{4 \times 3}{7 \times 3}$

$\frac{14}{21}$ and $\frac{12}{21}$

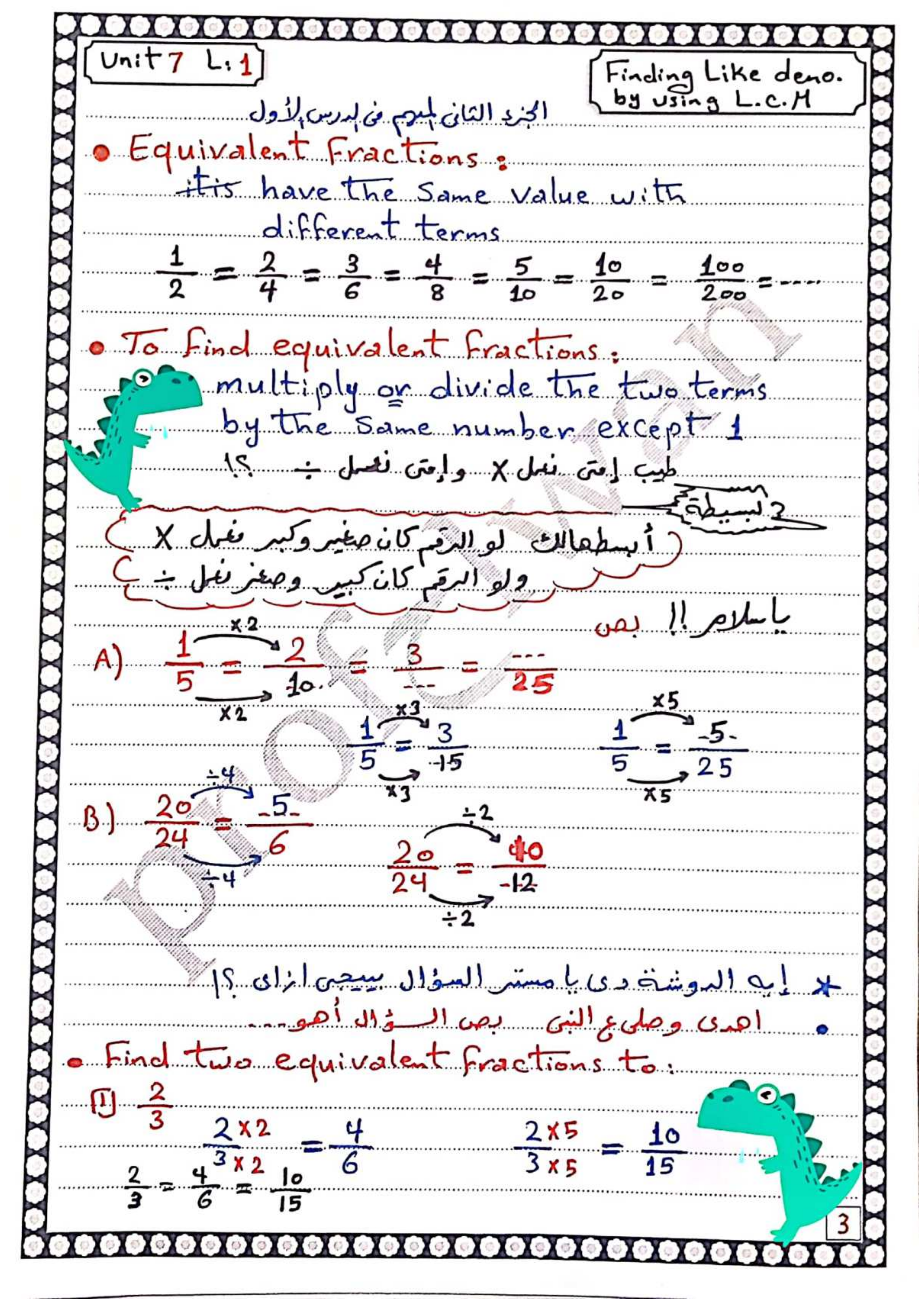
d) $\frac{7}{9}$ and $\frac{11}{12}$

9 = 3 x 3
12 = 3 x 2 x 2

L.C.M = 3 x 3 x 2 x 2 = 36

$\frac{7 \times 4}{9 \times 4}$ $\frac{11 \times 3}{12 \times 3}$

$\frac{28}{36}$ and $\frac{33}{36}$



Finding Like deno. by using L.C.M

الجزء الثانى المهم فى الدرس الأول

• Equivalent Fractions:

~~it is~~ have the same value with different terms

$$\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{5}{10} = \frac{10}{20} = \frac{100}{200} = \dots$$

• To find equivalent fractions:

multiply or divide the two terms by the same number except 1

طيب إمتى نعمل X وإمتى نعمل ÷ ؟!

بسيطة

أبسطهالك لو الرقم كان صغير وكبر نعمل X

ولو الرقم كان كبير وصغر نعمل ÷

بص ياسلام !!

A) $\frac{1}{5} = \frac{2}{10} = \frac{3}{\dots} = \frac{\dots}{25}$ (×2)

$\frac{1}{5} = \frac{3}{15}$ (×3) $\qquad \frac{1}{5} = \frac{5}{25}$ (×5)

B) $\frac{20}{24} = \frac{5}{6}$ (÷4) $\qquad \frac{20}{24} = \frac{10}{12}$ (÷2)

* إيه الدوشة دى يا مستر السؤال بيجى ازاى ؟!

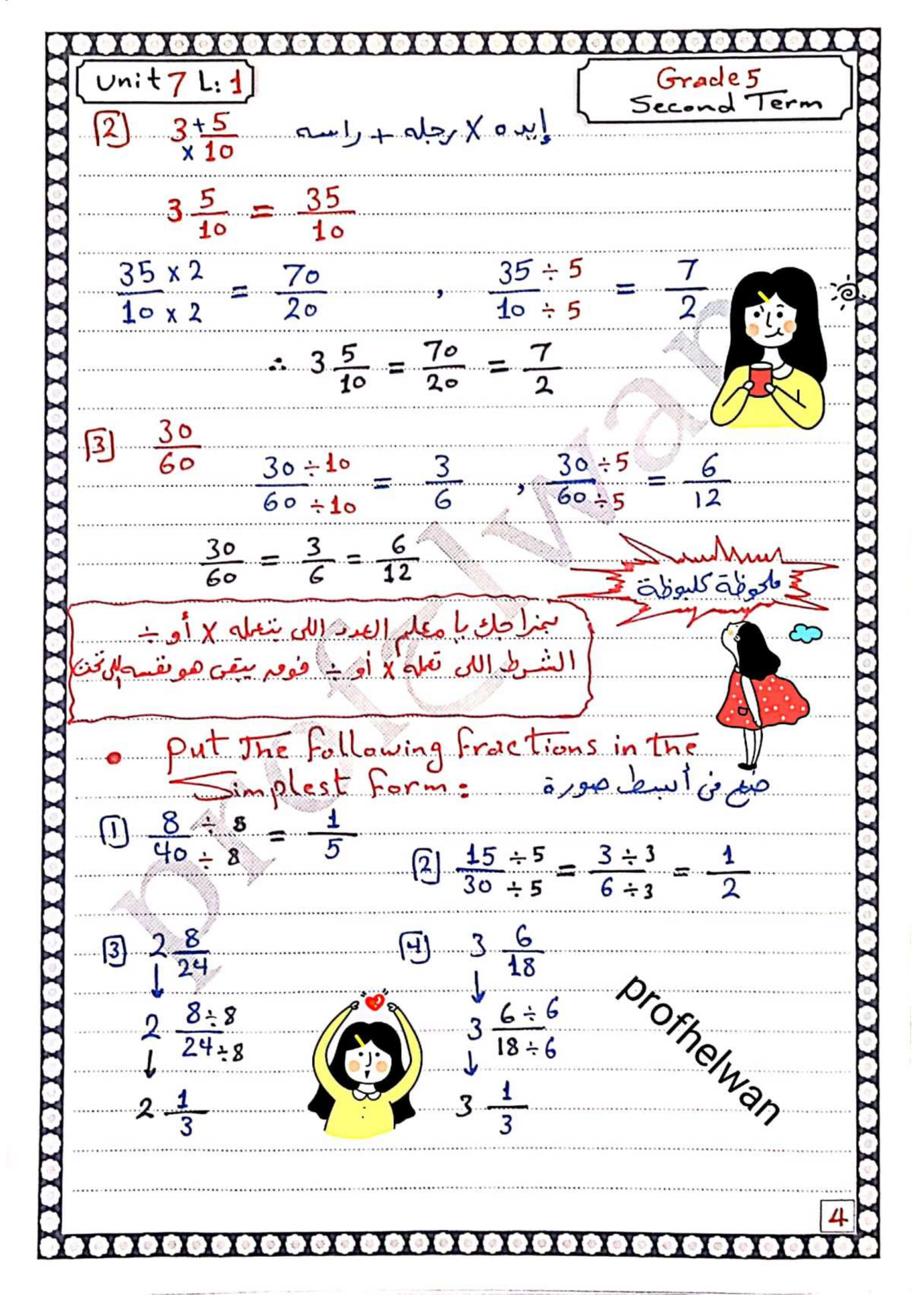
• اهدى وصلى ع النبى بص السؤال أهو...

• Find two equivalent fractions to:

1) $\frac{2}{3}$

$\frac{2 \times 2}{3 \times 2} = \frac{4}{6} \qquad \frac{2 \times 5}{3 \times 5} = \frac{10}{15}$

$\frac{2}{3} = \frac{4}{6} = \frac{10}{15}$



[2] $3\frac{5}{10}$ (+, ×) إيده X رجله + راسه

$$3\frac{5}{10} = \frac{35}{10}$$

$$\frac{35 \times 2}{10 \times 2} = \frac{70}{20} \quad , \quad \frac{35 \div 5}{10 \div 5} = \frac{7}{2}$$

$$\therefore 3\frac{5}{10} = \frac{70}{20} = \frac{7}{2}$$

[3] $\frac{30}{60}$

$$\frac{30 \div 10}{60 \div 10} = \frac{3}{6} \quad , \quad \frac{30 \div 5}{60 \div 5} = \frac{6}{12}$$

$$\frac{30}{60} = \frac{3}{6} = \frac{6}{12}$$

ملحوظة كلبوظة

بمزاجك يا معلم العدد اللى بتعمله X أو ÷
الشرط اللى تعمله X أو ÷ فوقه يبقى هو نفسه اللى تحت

- Put The following fractions in the Simplest form: ضع فى أبسط صورة

[1] $\frac{8 \div 8}{40 \div 8} = \frac{1}{5}$

[2] $\frac{15 \div 5}{30 \div 5} = \frac{3 \div 3}{6 \div 3} = \frac{1}{2}$

[3] $2\frac{8}{24}$ ↓ $2\frac{8 \div 8}{24 \div 8}$ ↓ $2\frac{1}{3}$

[4] $3\frac{6}{18}$ ↓ $3\frac{6 \div 6}{18 \div 6}$ ↓ $3\frac{1}{3}$

Unit 7 L: 1

Homework

* Send to Prof *

(1) Complete the following :-

a) $\frac{3}{5} = \frac{9}{---}$ b) $\frac{7}{21} = \frac{1}{---}$ c) $\frac{5}{8} = \frac{---}{48}$

d) $\frac{2}{7} = \frac{6}{---}$ e) $\frac{4}{12} = \frac{---}{36}$ f) $\frac{3}{10} = \frac{---}{50}$

(2) put the following fractions in the Simplest form:

a) $\frac{4}{12}$ b) $\frac{50}{90}$ c) $\frac{8}{16}$

d) $\frac{24}{36}$ e) $3\frac{6}{18}$ f) $\frac{14}{35}$

(3) Find two equivalent Fractions to each fraction

a) $\frac{21}{27}$ b) $\frac{4}{5}$ c) $\frac{36}{48}$

d) $3\frac{3}{6}$ e) $\frac{35}{70}$ f) $\frac{1}{2}$

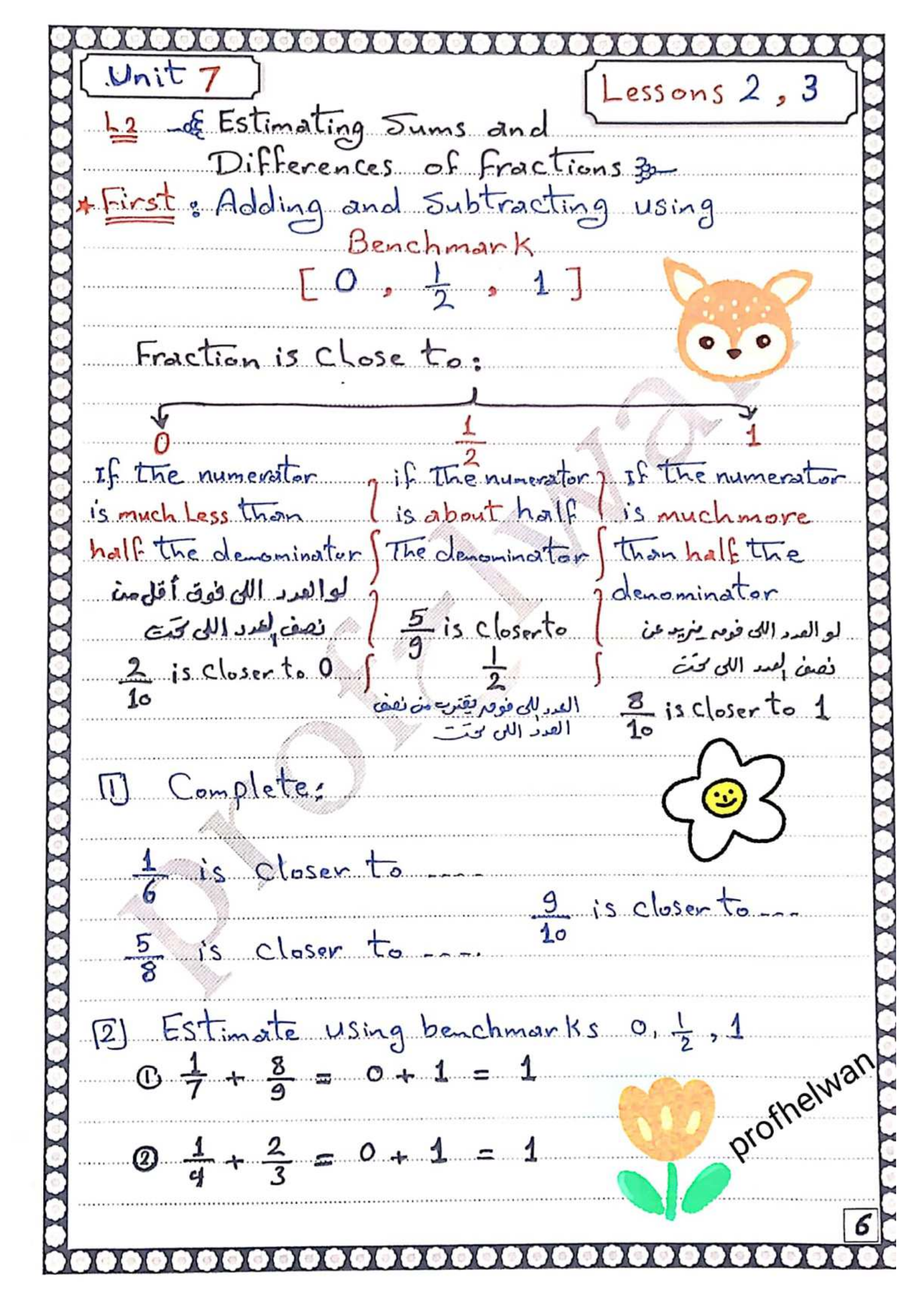
(4) Find the Smallest like denominators for the following fractions using L.C.M :

a) $\frac{5}{12}, \frac{3}{16}$ b) $\frac{4}{9}, \frac{2}{3}$

c) $\frac{5}{6}, \frac{3}{8}$ d) $\frac{3}{5}, \frac{2}{15}$

e) $\frac{2}{6}, \frac{4}{5}$ f) $\frac{3}{4}, \frac{5}{12}$





Unit 7

Lessons 2 , 3

L2 Estimating Sums and Differences of fractions

★ **First** : Adding and Subtracting using Benchmark

$[0, \frac{1}{2}, 1]$

Fraction is Close to:

0	$\frac{1}{2}$	1
If the numerator is much Less than half the denominator	if The numerator is about half The denominator	If the numerator is much more than half the denominator
لو العدد اللى فوق أقل من نصف العدد اللى تحت	$\frac{5}{9}$ is closer to $\frac{1}{2}$	لو العدد اللى فوق يزيد عن نصف العدد اللى تحت
$\frac{2}{10}$ is closer to 0	العدد اللى فوق يقترب من نصف العدد اللى تحت	$\frac{8}{10}$ is closer to 1

[1] Complete:

$\frac{1}{6}$ is closer to ....

$\frac{9}{10}$ is closer to ....

$\frac{5}{8}$ is closer to ....

[2] Estimate using benchmarks $0, \frac{1}{2}, 1$

① $\frac{1}{7} + \frac{8}{9} = 0 + 1 = 1$

② $\frac{1}{4} + \frac{2}{3} = 0 + 1 = 1$

③ $\frac{4}{9} + \frac{7}{8} = \frac{1}{2} + 1 = 1\frac{1}{2}$

④ $\frac{5}{6} - \frac{7}{12} = 1 - \frac{1}{2} = \frac{1}{2}$

⑤ $\frac{3}{4} - \frac{2}{3} = 1 - 1 = 0$

[3] صحصح بأة للسؤال دة علشان هيعمل قلق

Indicate whether the given estimate is an overestimate or underestimate ?

* وضح ما إذا كان التقدير المحدد هو تقدير بقيمة أكبر أم تقدير بقيمة أقل ؟

a. $\frac{9}{10} + \frac{2}{5}$ is about $1\frac{1}{2}$ overestimate

ليه بأه إن شاء الله وليه مش underestimate

Estimation نوع التقدير	التقدير	القيمة الحقيقية	Fraction
over تقدير بقيمة أكبر	1	أقل من 1	$\frac{9}{10}$
over تقدير بقيمة أكبر	$\frac{1}{2}$	أقل من $\frac{1}{2}$	$\frac{2}{5}$

b. $\overset{\frac{1}{2}}{\frac{3}{5}} + \overset{\frac{1}{2}}{\frac{6}{10}}$ is about 1 Underestimate

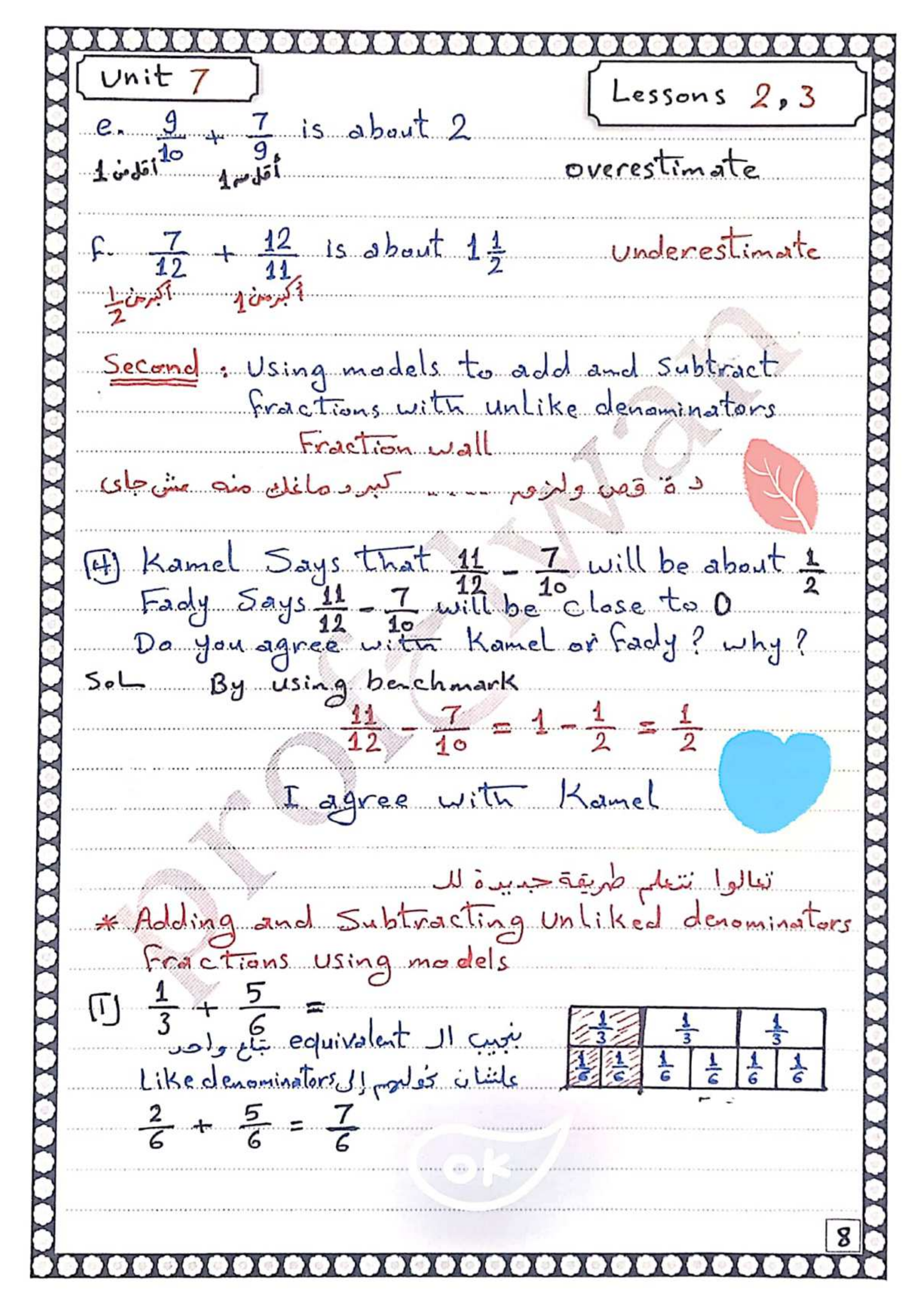
أكبر من $\frac{1}{2}$ — أكبر من $\frac{1}{2}$

c. $\overset{0}{\frac{1}{3}} + \overset{\frac{1}{2}}{\frac{5}{9}}$ is about $\frac{1}{2}$ Underestimate

أكبر من 0 — أكبر من $\frac{1}{2}$

d. $\overset{\frac{1}{2}}{\frac{2}{5}} + \overset{\frac{1}{2}}{\frac{3}{7}}$ is about 1 Overestimate

أقل من $\frac{1}{2}$ — أقل من $\frac{1}{2}$



e. $\frac{9}{10} + \frac{7}{9}$ is about 2 — overestimate

(أقل من 1) (أقل من 1)

f. $\frac{7}{12} + \frac{12}{11}$ is about $1\frac{1}{2}$ — underestimate

(أكبر من $\frac{1}{2}$) (أكبر من 1)

Second: Using models to add and subtract fractions with unlike denominators

Fraction wall

دة قص ولزق .... كبر دماغك منه مش جاي

(4) Kamel Says that $\frac{11}{12} - \frac{7}{10}$ will be about $\frac{1}{2}$

Fady Says $\frac{11}{12} - \frac{7}{10}$ will be close to 0

Do you agree with Kamel or Fady? why?

Sol: By using benchmark

$$\frac{11}{12} - \frac{7}{10} = 1 - \frac{1}{2} = \frac{1}{2}$$

I agree with Kamel

تعالوا نتعلم طريقة جديدة لل

* Adding and Subtracting Unliked denominators fractions using models

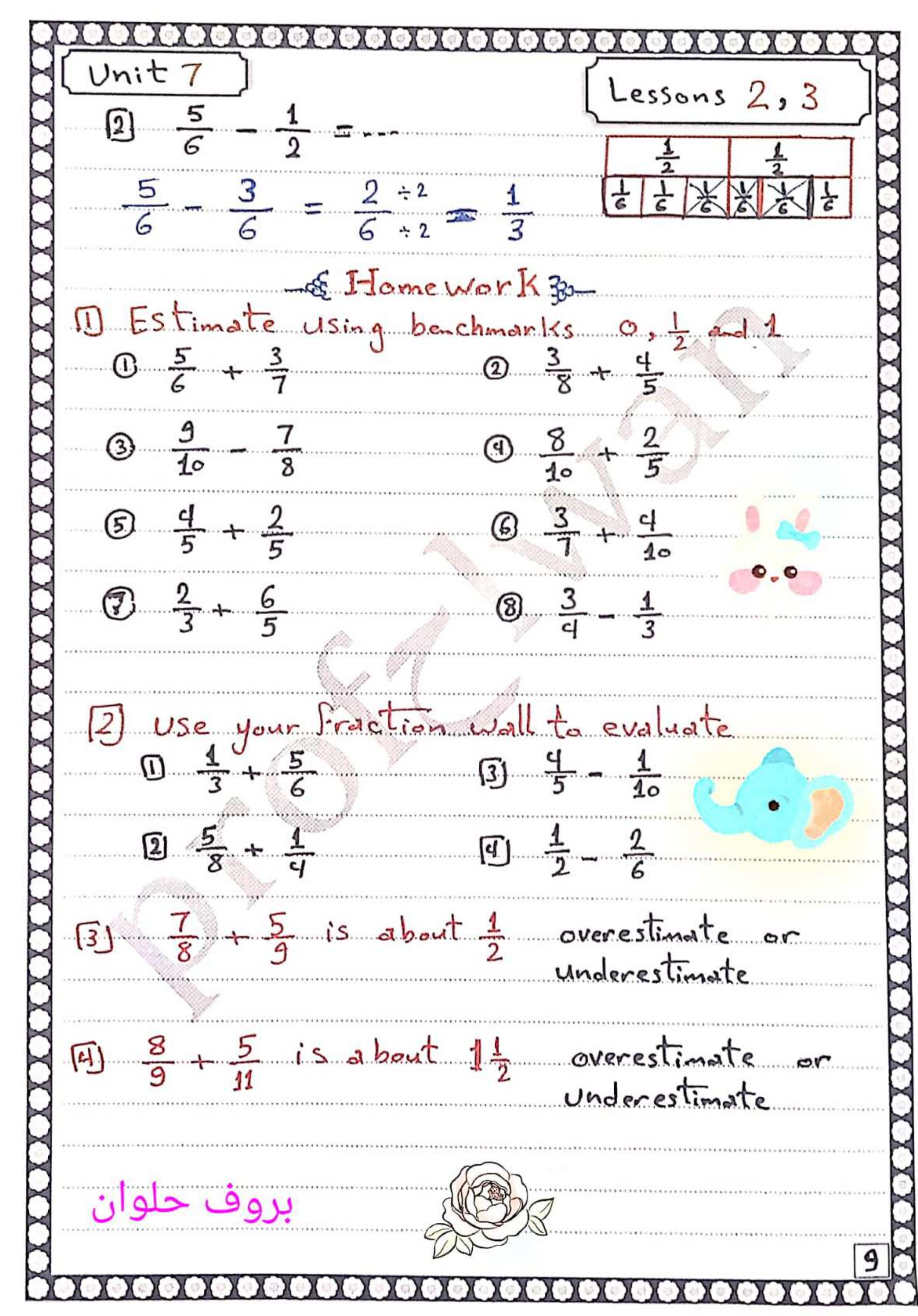
[1] $\frac{1}{3} + \frac{5}{6} =$

بنجيب ال equivalent بتاع واحد

علشان كلهم ال Like denominators

$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$	
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

$\frac{2}{6} + \frac{5}{6} = \frac{7}{6}$



Unit 7

Lessons 2, 3

[2] $\frac{5}{6} - \frac{1}{2} = \ldots$

$\frac{1}{2}$			$\frac{1}{2}$		
$\frac{1}{6}$	$\frac{1}{6}$	~~$\frac{1}{6}$~~	~~$\frac{1}{6}$~~	~~$\frac{1}{6}$~~	$\frac{1}{6}$

$$\frac{5}{6} - \frac{3}{6} = \frac{2 \div 2}{6 \div 2} = \frac{1}{3}$$

Homework

[1] Estimate using benchmarks $0, \frac{1}{2}$ and 1

① $\frac{5}{6} + \frac{3}{7}$ ② $\frac{3}{8} + \frac{4}{5}$

③ $\frac{9}{10} - \frac{7}{8}$ ④ $\frac{8}{10} + \frac{2}{5}$

⑤ $\frac{4}{5} + \frac{2}{5}$ ⑥ $\frac{3}{7} + \frac{4}{10}$

⑦ $\frac{2}{3} + \frac{6}{5}$ ⑧ $\frac{3}{4} - \frac{1}{3}$

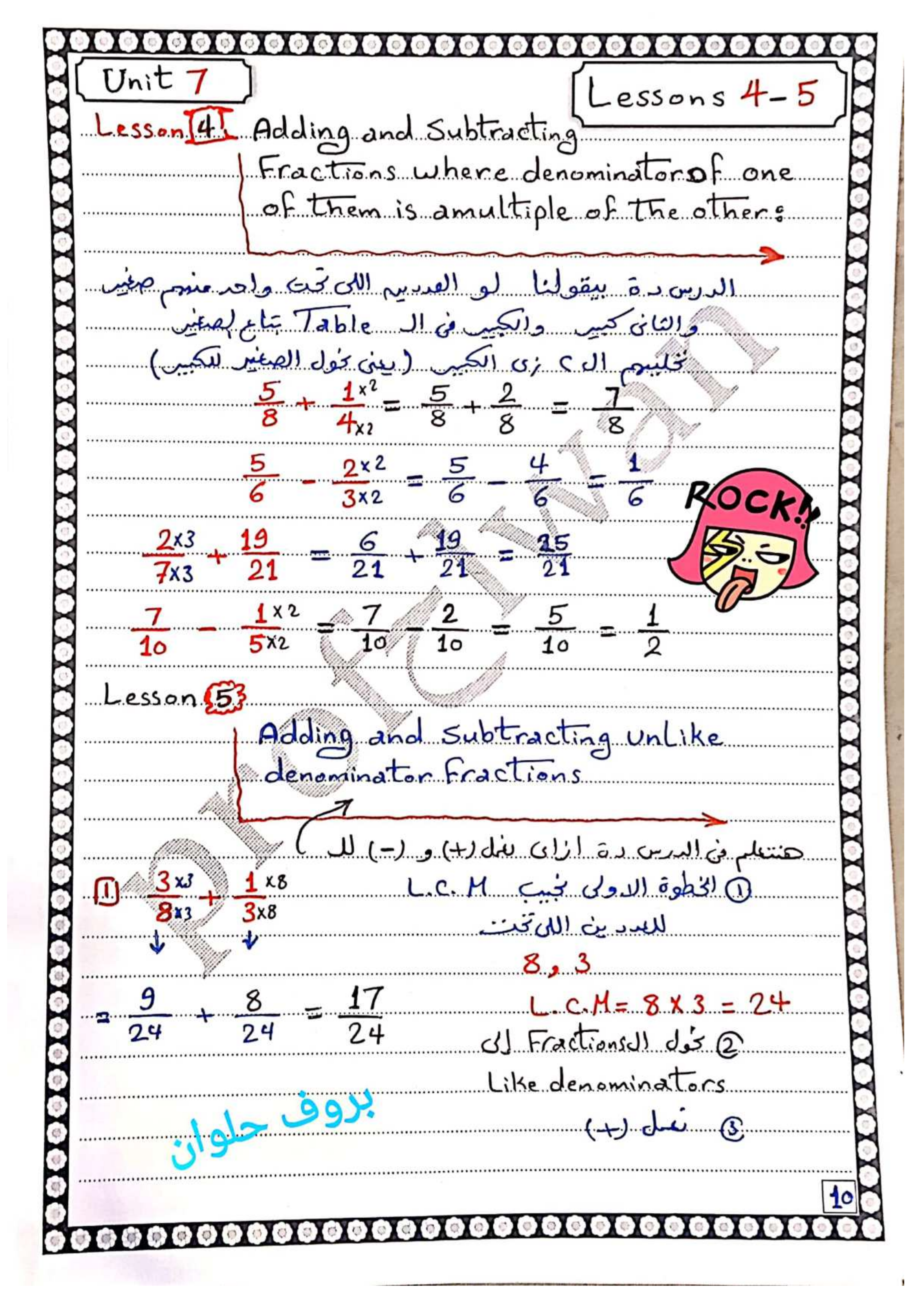
[2] Use your fraction wall to evaluate

[1] $\frac{1}{3} + \frac{5}{6}$ [3] $\frac{4}{5} - \frac{1}{10}$

[2] $\frac{5}{8} + \frac{1}{4}$ [4] $\frac{1}{2} - \frac{2}{6}$

[3] $\frac{7}{8} + \frac{5}{9}$ is about $\frac{1}{2}$ overestimate or underestimate

[4] $\frac{8}{9} + \frac{5}{11}$ is about $1\frac{1}{2}$ overestimate or underestimate



Unit 7

Lessons 4-5

Lesson 4: Adding and Subtracting Fractions where denominator of one of them is a multiple of the other:

الدرس دة بيقولنا لو العددين اللى تحت واحد منهم صغير
والتانى كبير والكبير فى ال Table بتاع الصغير
نخليهم ال D زى الكبير (يعنى نحول الصغير للكبير)

$$\frac{5}{8} + \frac{1 \times 2}{4 \times 2} = \frac{5}{8} + \frac{2}{8} = \frac{7}{8}$$

$$\frac{5}{6} - \frac{2 \times 2}{3 \times 2} = \frac{5}{6} - \frac{4}{6} = \frac{1}{6}$$

$$\frac{2 \times 3}{7 \times 3} + \frac{19}{21} = \frac{6}{21} + \frac{19}{21} = \frac{25}{21}$$

$$\frac{7}{10} - \frac{1 \times 2}{5 \times 2} = \frac{7}{10} - \frac{2}{10} = \frac{5}{10} = \frac{1}{2}$$

Lesson 5: Adding and Subtracting Unlike denominator Fractions

هنتعلم فى الدرس دة ازاى نعمل (+) و (−) لل

1. $\frac{3 \times 3}{8 \times 3} + \frac{1 \times 8}{3 \times 8}$

$$= \frac{9}{24} + \frac{8}{24} = \frac{17}{24}$$

① الخطوة الاولى نجيب L.C.M للعددين اللى تحت

8 , 3

L.C.M = 8 × 3 = 24

② نحول الFractions لل Like denominators

③ نعمل (+)

2) $\frac{7^{\times 2}}{9_{\times 2}} - \frac{1^{\times 3}}{6_{\times 3}}$

$9 = 3 \times 3$

$6 = 3 \times 2$

L.C.M $= 3 \times 3 \times 2 = 18$

$\frac{14}{18} - \frac{3}{18}$

$= \frac{11}{18}$

3) $\frac{2^{\times 8}}{5_{\times 8}} + \frac{3^{\times 5}}{8_{\times 5}} + 1$

L.C.M $= 5 \times 8 = 40$

$\frac{16}{40} + \frac{15}{40} + \frac{40}{40} = \frac{71}{40} = 1\frac{31}{40}$

4) $1 - \frac{1}{4} - \frac{1}{5}$

L.C.M $= 20$

$\frac{20}{20} - \frac{5}{20} - \frac{4}{20} = \frac{11}{20}$

5) Who is Correct? Soliman, Seif and Samar

$\frac{1}{12} + \frac{2}{3}$

Soliman's Answer $\frac{9}{12}$

Seif's Answer $\frac{3}{15}$

Samar's Answer $\frac{3}{4}$

1) IS Soliman Correct? why?

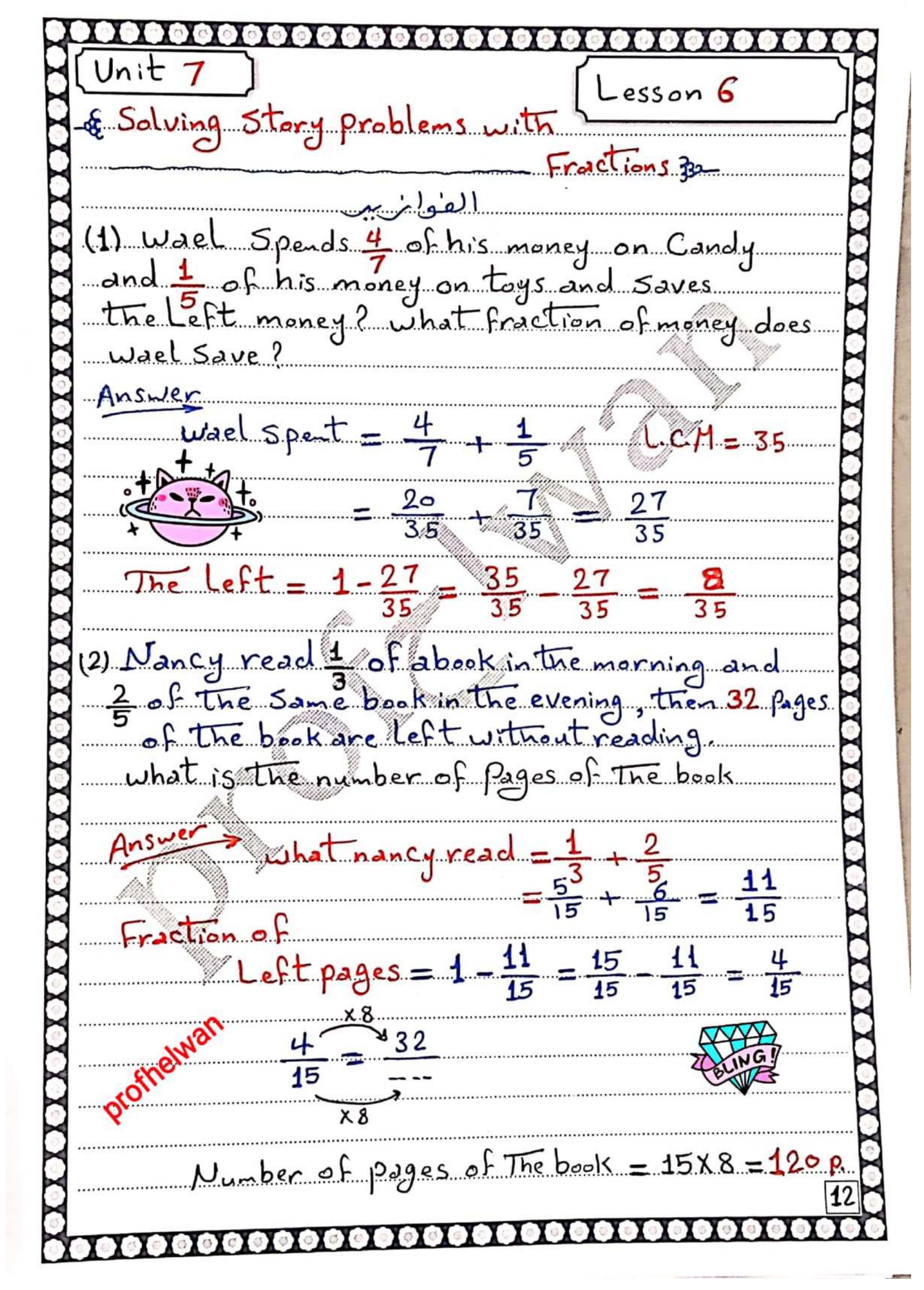
Yes, He rewrote the fractions with like denominators using L.C.M

2) IS Seif Correct? why?

No, He added numerators and denominators.

3) IS Samar Correct? why?

Yes, She Simplified the answer.



Unit 7

Lesson 6

Solving Story problems with Fractions

الفوازير

(1) wael Spends $\frac{4}{7}$ of his money on Candy and $\frac{1}{5}$ of his money on toys and Saves the Left money? what fraction of money does wael Save?

Answer

wael spent $= \frac{4}{7} + \frac{1}{5}$ L.C.M = 35

$= \frac{20}{35} + \frac{7}{35} = \frac{27}{35}$

The Left $= 1 - \frac{27}{35} = \frac{35}{35} - \frac{27}{35} = \frac{8}{35}$

(2) Nancy read $\frac{1}{3}$ of a book in the morning and $\frac{2}{5}$ of the Same book in the evening, then 32 pages of the book are left without reading. what is the number of Pages of The book

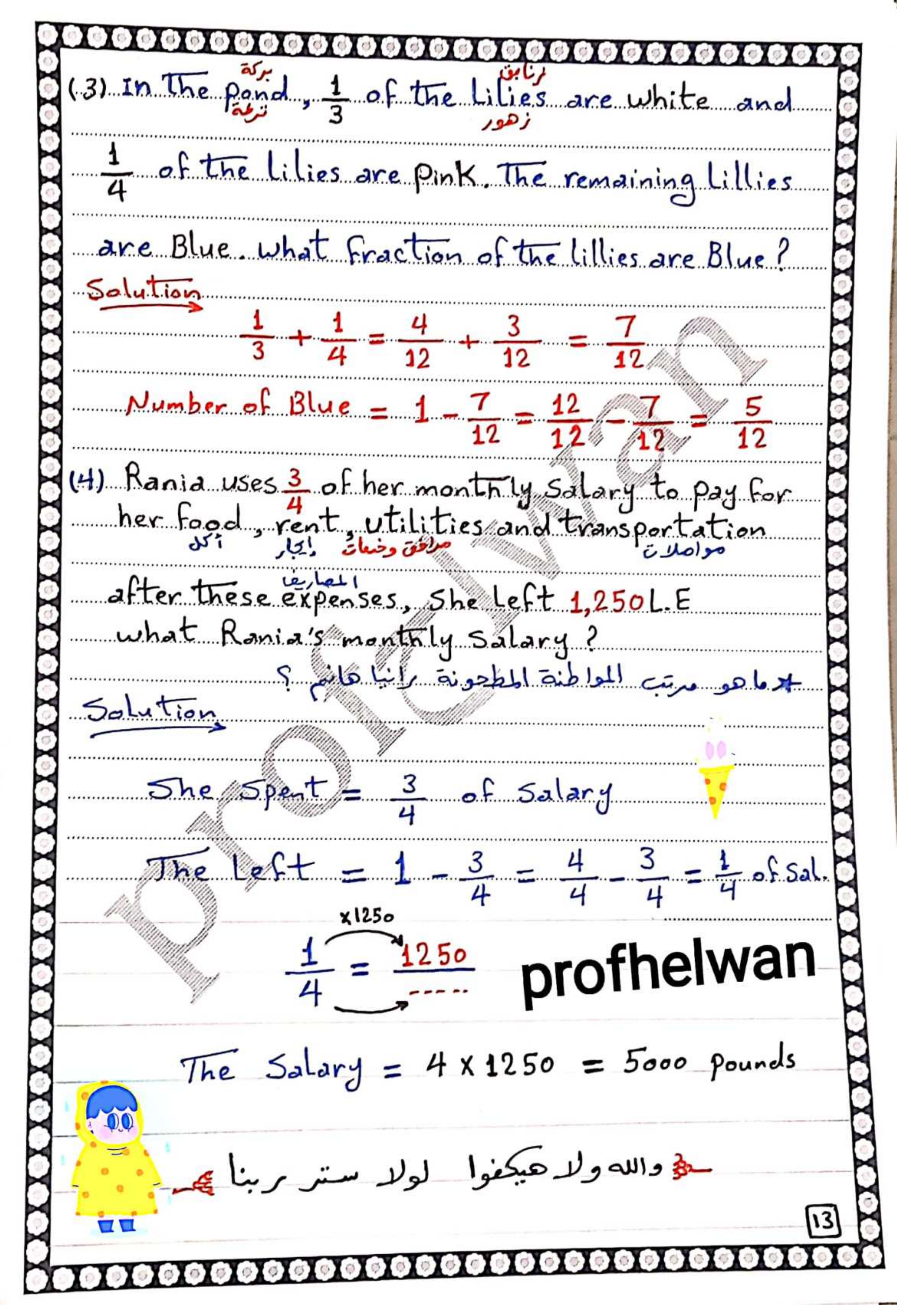
Answer what nancy read $= \frac{1}{3} + \frac{2}{5}$

$= \frac{5}{15} + \frac{6}{15} = \frac{11}{15}$

Fraction of Left pages $= 1 - \frac{11}{15} = \frac{15}{15} - \frac{11}{15} = \frac{4}{15}$

$\frac{4}{15} = \frac{32}{---}$ (×8)

Number of pages of The book $= 15 \times 8 = 120$ p.



(3) In the pond (بركة / ترعة), $\frac{1}{3}$ of the Lilies (زنابق / زهور) are white and $\frac{1}{4}$ of the Lilies are pink. The remaining Lillies are Blue. what fraction of the lillies are Blue?

Solution

$$\frac{1}{3} + \frac{1}{4} = \frac{4}{12} + \frac{3}{12} = \frac{7}{12}$$

$$\text{Number of Blue} = 1 - \frac{7}{12} = \frac{12}{12} - \frac{7}{12} = \frac{5}{12}$$

(4) Rania uses $\frac{3}{4}$ of her monthly Salary to pay for her food (أكل), rent (إيجار), utilities (مرافق وخدمات) and transportation (مواصلات) after these expenses (المصاريف), She Left 1,250 L.E what Rania's monthly Salary?

* ماهو مرتب المواطنة المطحونة رانيا هانم ؟

Solution

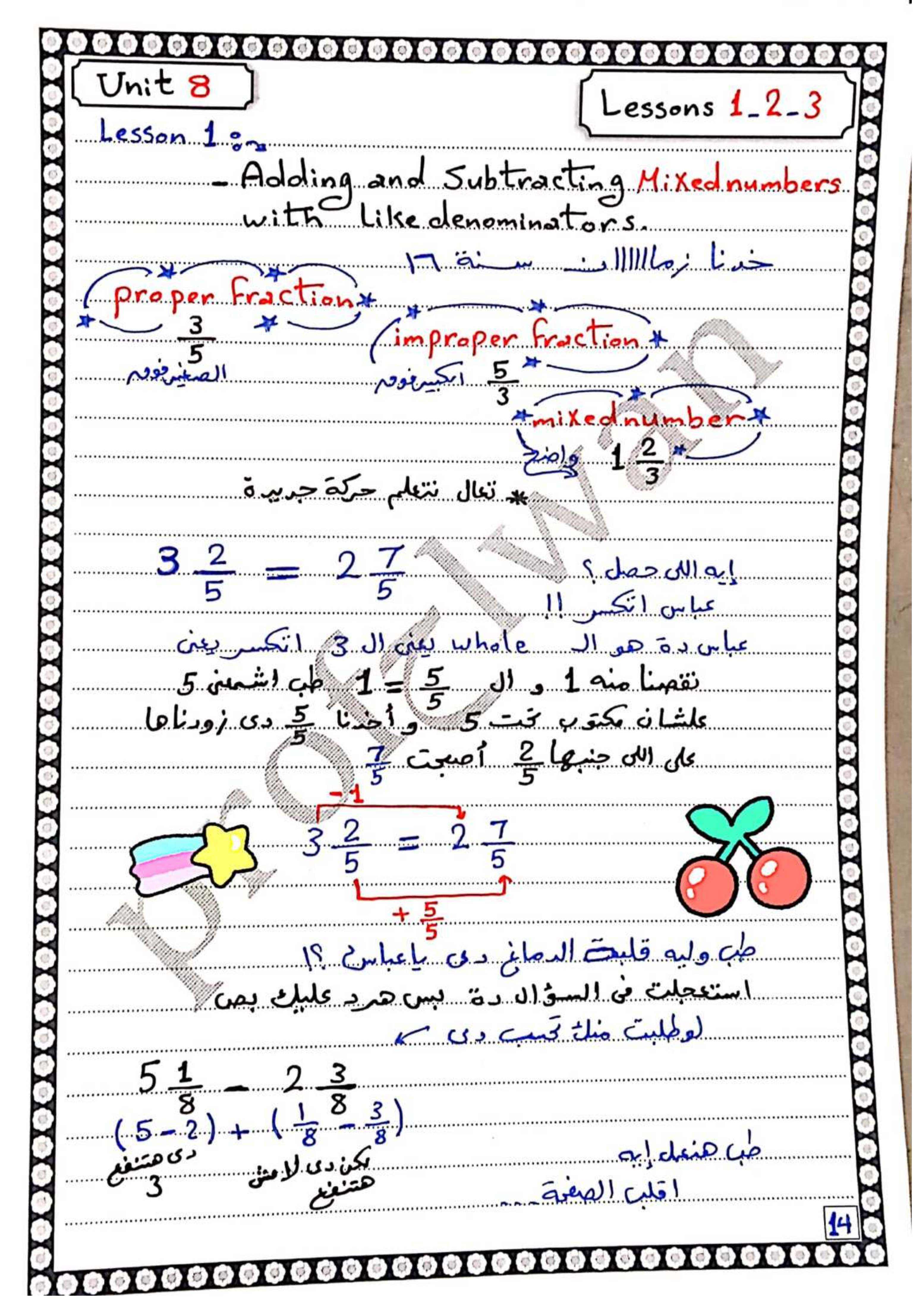
$$\text{She Spent} = \frac{3}{4} \text{ of Salary}$$

$$\text{The Left} = 1 - \frac{3}{4} = \frac{4}{4} - \frac{3}{4} = \frac{1}{4} \text{ of Sal.}$$

$$\frac{1}{4} = \frac{1250}{----} \quad (\times 1250)$$

The Salary = 4 × 1250 = 5000 pounds

والله ولا هيكفوا لولا ستر ربنا



Unit 8

Lessons 1_2_3

Lesson 1 :-

- Adding and Subtracting Mixed numbers with like denominators.

خدنا زماااااان سنة ١٦

proper fraction $\frac{3}{5}$ الصغيرفوق

improper fraction $\frac{5}{3}$ الكبيرفوق

mixed number $1\frac{2}{3}$ واضح

* تعال نتعلم حركة جديدة

$3\frac{2}{5} = 2\frac{7}{5}$

إيه اللى حصل ؟
عباس اتكسر !!

عباس دة هو ال whole يعنى ال 3 اتكسر يعنى نقصنا منه 1 و ال $1 = \frac{5}{5}$ طب اشمعنى 5 علشان مكتوب تحت 5 وأخدنا $\frac{5}{5}$ دى زودناها على اللى جنبها $\frac{2}{5}$ أصبحت $\frac{7}{5}$

$3\frac{2}{5} = 2\frac{7}{5}$ (−1 ، $+\frac{5}{5}$)

طب وليه قلبت الدماغ دى ياعباس ؟!
استعجلت فى السؤال دة بس هرد عليك بص
لوطلبت منك تحسب دى ←

$5\frac{1}{8} - 2\frac{3}{8}$

$(5-2) + (\frac{1}{8} - \frac{3}{8})$

دى هتنفع 3 ، بكن دى لا مش هتنفع

طب هنعمل إيه
اقلب الصفحة ...

$$5\frac{1}{8} - 2\frac{3}{8} = 4\frac{9}{8} - 2\frac{3}{8}$$

$$= (4-2) + \left(\frac{9}{8} - \frac{3}{8}\right)$$

$$= 2 + \frac{6}{8}$$

$$= 2\frac{6}{8}$$

يارب تكون وصلت ↑

واحدة كمان

$$11\frac{1}{6} - 5\frac{5}{6}$$

بص على الـ Fractions الأول

$$11\frac{1}{6} - 5\frac{5}{6} = 10\frac{7}{6} - 5\frac{5}{6}$$

$$= (10-5) + \left(\frac{7}{6} - \frac{5}{6}\right)$$

$$= 5 + \frac{2}{6} = 5\frac{2}{6} = 5\frac{1}{3}$$

خلاصة الدرس دة

سواء (+) أو (−)

المسألة دى تتحل بطريقتين

$$2\frac{3}{5} + 3\frac{1}{5}$$

الأولى

improper

$$2\frac{3}{5} + 3\frac{1}{5}$$

(ايده X رجله + راسه)

$$\frac{13}{5} + \frac{16}{5} = \frac{29}{5} = 5\frac{4}{5}$$

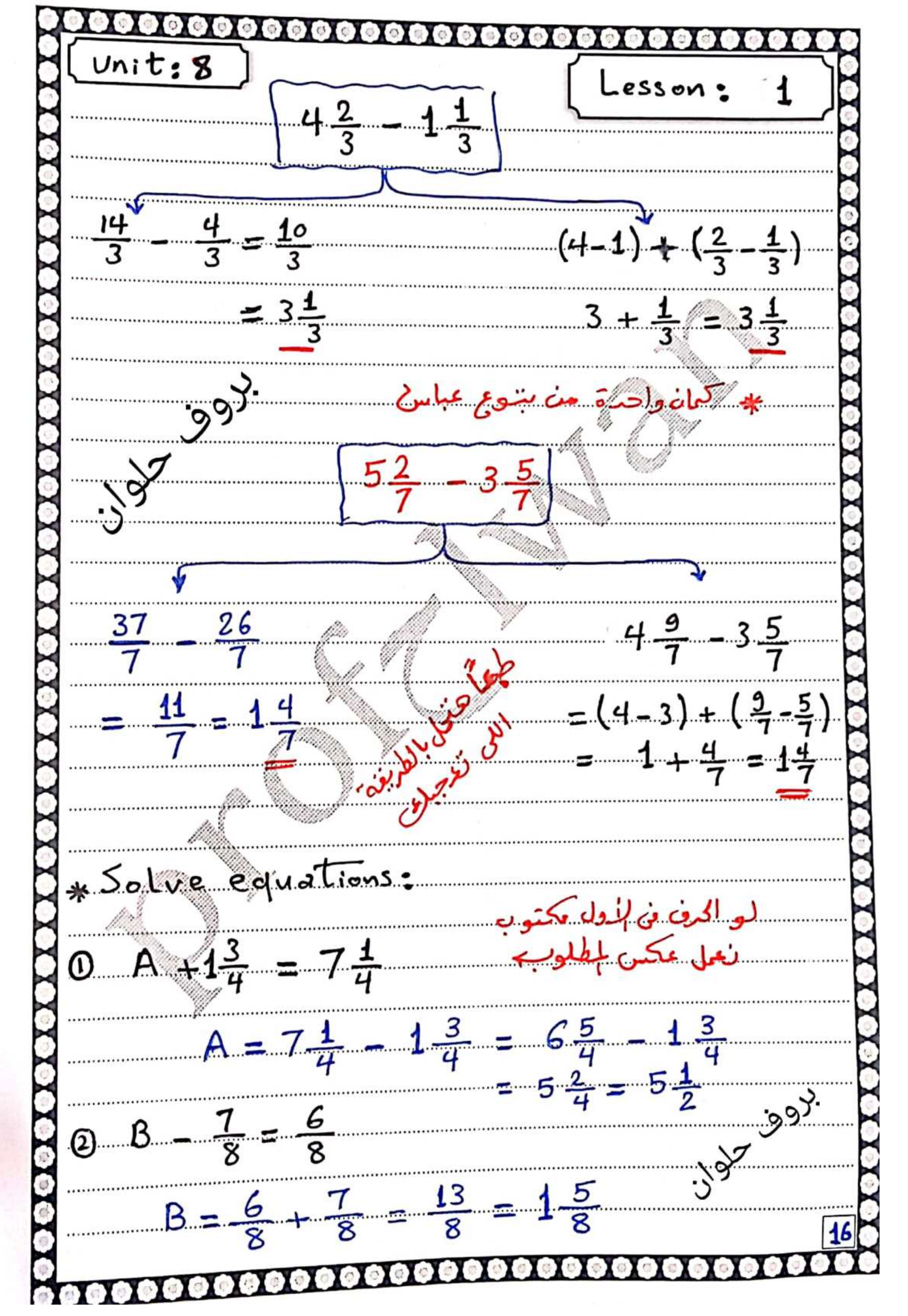
التانية

Decomposing

$$2\frac{3}{5} + 3\frac{1}{5}$$

$$(2+3) + \left(\frac{3}{5} + \frac{1}{5}\right)$$

$$5 + \frac{4}{5} = 5\frac{4}{5}$$



Unit: 8

Lesson: 1

$$4\frac{2}{3} - 1\frac{1}{3}$$

$\frac{14}{3} - \frac{4}{3} = \frac{10}{3}$

$= 3\frac{1}{3}$

$(4-1) + (\frac{2}{3} - \frac{1}{3})$

$3 + \frac{1}{3} = 3\frac{1}{3}$

* كمان واحدة من بتوع عباس

$$5\frac{2}{7} - 3\frac{5}{7}$$

$\frac{37}{7} - \frac{26}{7}$

$= \frac{11}{7} = 1\frac{4}{7}$

$4\frac{9}{7} - 3\frac{5}{7}$

$= (4-3) + (\frac{9}{7} - \frac{5}{7})$

$= 1 + \frac{4}{7} = 1\frac{4}{7}$

طبعاً هتحل بالطريقة اللى تعجبك

* Solve equations:

لو الحرف فى الأول مكتوب نعمل عكس المطلوب

① $A + 1\frac{3}{4} = 7\frac{1}{4}$

$A = 7\frac{1}{4} - 1\frac{3}{4} = 6\frac{5}{4} - 1\frac{3}{4}$

$= 5\frac{2}{4} = 5\frac{1}{2}$

② $B - \frac{7}{8} = \frac{6}{8}$

$B = \frac{6}{8} + \frac{7}{8} = \frac{13}{8} = 1\frac{5}{8}$

③ $2\frac{5}{8} - C = 1\frac{1}{8}$

لو الحرف فى النص و (-) مع غير ما نبص

$C = 2\frac{5}{8} - 1\frac{1}{8} = 1\frac{4}{8} = 1\frac{1}{2}$

④ $4 - p = 1\frac{1}{5}$

$p = 4 - 1\frac{1}{5} = 3\frac{5}{5} - 1\frac{1}{5} = 2\frac{4}{5}$

Lesson 2 : Finding Like denominators

use L.C.M

1 Rewrite The given two mixed numbers with Like deno. in two different ways

خليهم Like بطريقتين مختلفتين

$3\frac{1}{4}$ and $1\frac{6}{30}$

الطريقة الأولى : نجيب ال L.C.M للى تحت 4, 30

$4 \times 15 = 60$ $30 \times 2 = 60$

4 → 2, 2

30 → 5, 6 → 2, 3

$3\frac{15}{60}$ ، $1\frac{12}{60}$

$4 = 2 \times 2$

$30 = 2 \times 3 \times 5$

$L.C.M = 2 \times 2 \times 3 \times 5 = \boxed{60}$

الطريقة الثانية : نعمل Simplify قبل ما نجيب L.C.M

$3\frac{1}{4}$ ، $1\frac{6}{30} = 1\frac{1}{5}$

L.C.M to 4 and 5 is $\boxed{20}$

$3\frac{5}{20}$ ، $1\frac{4}{20}$ أعتقد دى أسهل

$10\frac{5}{6}$ and $5\frac{15}{27}$ واحدة كمان

First way L.C.M for 6 and 27

6 → ② ③

27 → ③ , 9 → ③ ③

$6 = 2 \times 3$

$27 = 3 \times 3 \times 3$

$L.C.M = 2 \times 3 \times 3 \times 3 = \boxed{54}$

$6 \times 9 = 54$

$27 \times 2 = 54$

$10\frac{5\times9}{6\times9} = \boxed{10\frac{45}{54}}$ ، $5\frac{15\times2}{27\times2} = \boxed{5\frac{30}{54}}$

Second way Simplify

$10\frac{5}{6}$ ، $5\frac{15\div3}{27\div3} = 5\frac{5}{9}$

زي ماهي

L.C.M for 6 and 9

$6 = 2 \times 3$

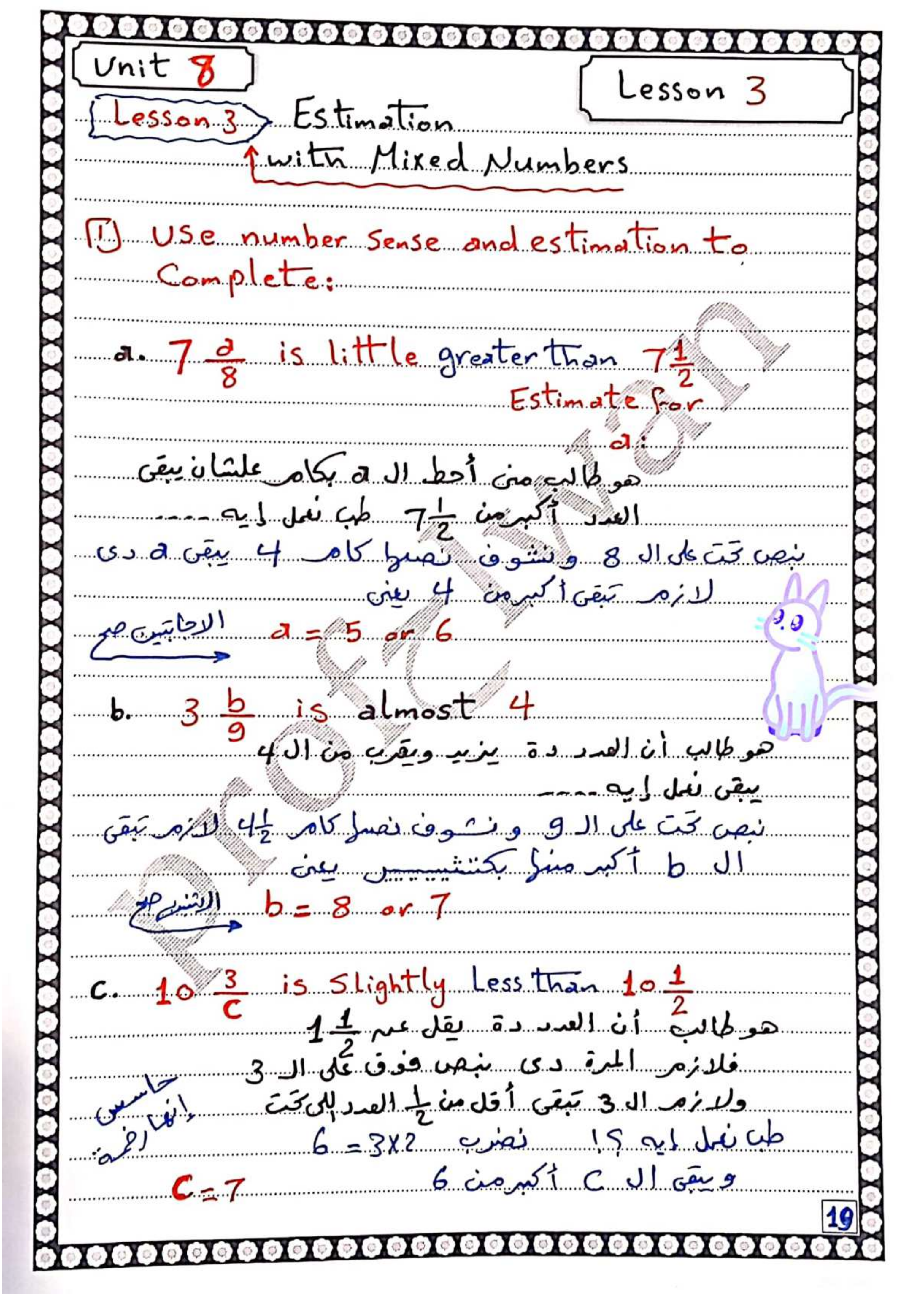
$9 = 3 \times 3$

$L.C.M = 2 \times 3 \times 3 = \boxed{18}$

$6 \times 3 = 18$

$9 \times 2 = 18$

$10\frac{5}{6} = \boxed{10\frac{15}{18}}$ ، $5\frac{5}{9} = \boxed{5\frac{10}{18}}$



Unit 8

Lesson 3

Lesson 3 → Estimation with Mixed Numbers

[1] Use number sense and estimation to Complete:

a. $7\frac{a}{8}$ is little greater than $7\frac{1}{2}$

Estimate for a:

هو طالب مني أحط ال a بكام علشان يبقى العدد أكبر من $7\frac{1}{2}$ طب نعمل إيه ....

نبص تحت على ال 8 ونشوف نصها كام 4 يبقى a دى لازم تبقى أكبر من 4 يعني

الإجابتين صح → $a = 5$ or 6

b. $3\frac{b}{9}$ is almost 4

هو طالب أن العدد دة يزيد ويقرب من ال 4 يبقى نعمل إيه ....

نبص تحت على ال 9 ونشوف نصها كام $4\frac{1}{2}$ لازم تبقى ال b أكبر منها بكتيييير يعني

الاتنين صح → $b = 8$ or 7

c. $10\frac{3}{c}$ is Slightly Less than $10\frac{1}{2}$

هو طالب أن العدد دة يقل عن $1\frac{1}{2}$

فلازم المرة دى نبص فوق على ال 3

ولازم ال 3 تبقى أقل من $\frac{1}{2}$ العدد اللى تحت

طب نعمل إيه ؟! نضرب $3 \times 2 = 6$

ويبقى ال C أكبر من 6

حاسس إنها راخمة:

$C = 7$

2 Using estimation to add and subtract

a) $6\frac{3}{4} - 2\frac{1}{5}$

$\frac{3}{4} \rightarrow 1 \qquad 6\frac{3}{4} \rightarrow 7$

$\frac{1}{5} \rightarrow 0 \qquad 2\frac{1}{5} \rightarrow 2$

$6\frac{3}{4} - 2\frac{1}{5}$ estimate $7 - 2 = 5$

b) $4\frac{2}{3} + 3\frac{5}{6}$

$\frac{2}{3} \rightarrow 1$

$4\frac{2}{3} \rightarrow 5 \qquad \frac{5}{6} \rightarrow 1$

$3\frac{5}{6} \rightarrow 4 \qquad 4\frac{2}{3} + 3\frac{5}{6}$ estimate $5 + 4 = 9$

c) $2\frac{1}{5} + 3\frac{10}{21} = 2 + 3\frac{1}{2} = 5\frac{1}{2}$

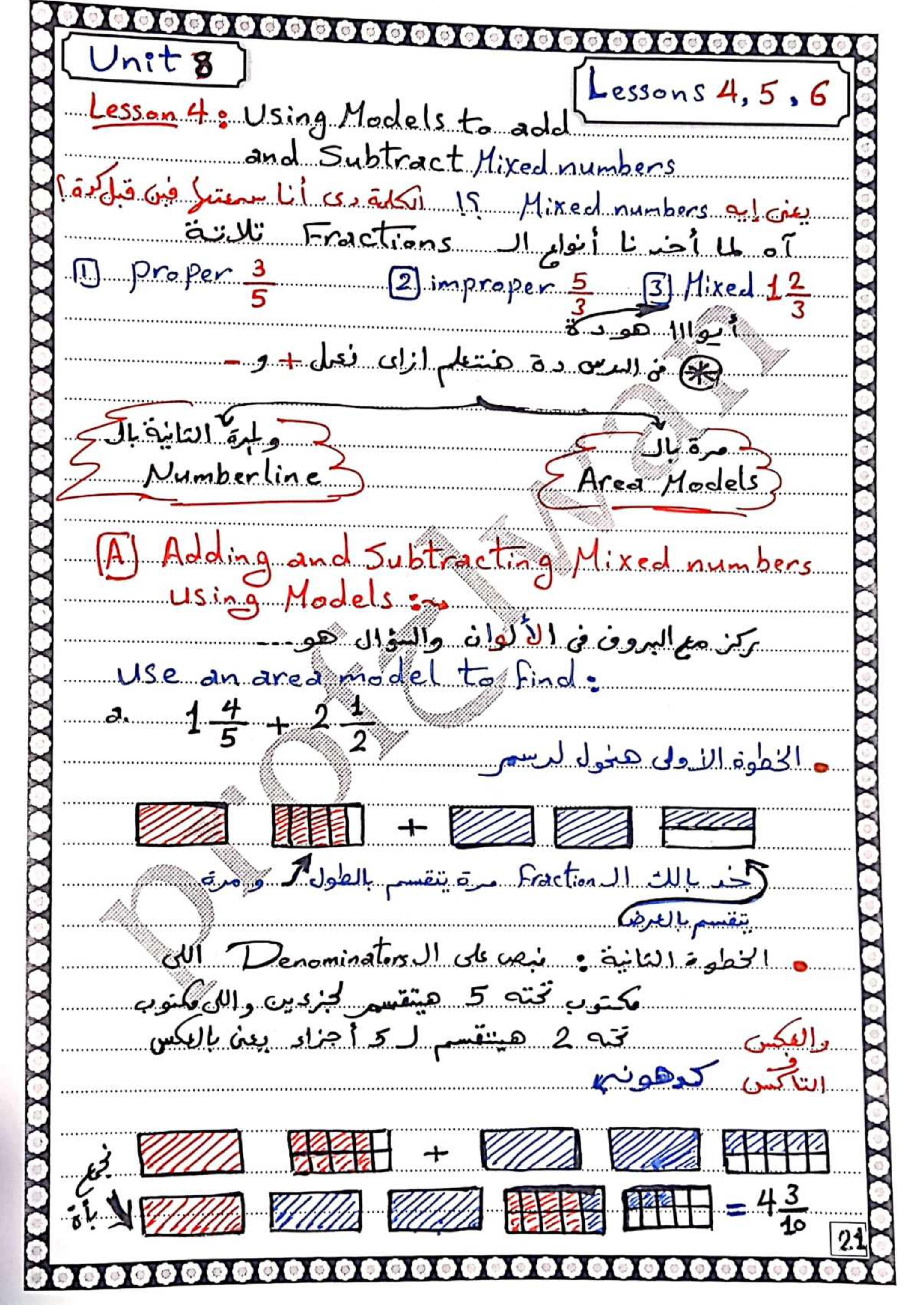
$\frac{10}{21} \Rightarrow \frac{1}{2}$ علشان 21 نصها $10\frac{1}{2}$ وال 10 قريبة منها

d) $4\frac{3}{5} - 1\frac{7}{12} = 4\frac{1}{2} - 1\frac{1}{2} = 3$

e) $3\frac{21}{24} - 2\frac{1}{3} = 4 - 2\frac{1}{2} = 1\frac{1}{2}$

f) $9\frac{6}{11} + 2\frac{3}{100} = 9\frac{1}{2} + 2 = 11\frac{1}{2}$

g) $7\frac{5}{14} - 3\frac{19}{34} = 7\frac{1}{2} - 3\frac{1}{2} = 4$



Unit 8

Lessons 4, 5, 6

Lesson 4: Using Models to add and Subtract Mixed numbers

يعني إيه Mixed numbers ؟! الكلمة دي أنا سمعتها فين قبل كدة؟!

آه لما أخدنا أنواع الـ Fractions تلاتة

1. Proper $\frac{3}{5}$
2. improper $\frac{5}{3}$
3. Mixed $1\frac{2}{3}$

أيوااا هو دة

(*) من الدرس دة هنتعلم ازاي نعمل + و −

مرة بالـ Area Models

ولمرة التانية بالـ Numberline

A. Adding and Subtracting Mixed numbers using Models:

ركز مع الحروف في الألوان والسؤال هو...

Use an area model to find:

a. $1\frac{4}{5} + 2\frac{1}{2}$

• الخطوة الأولى هنحول لرسم

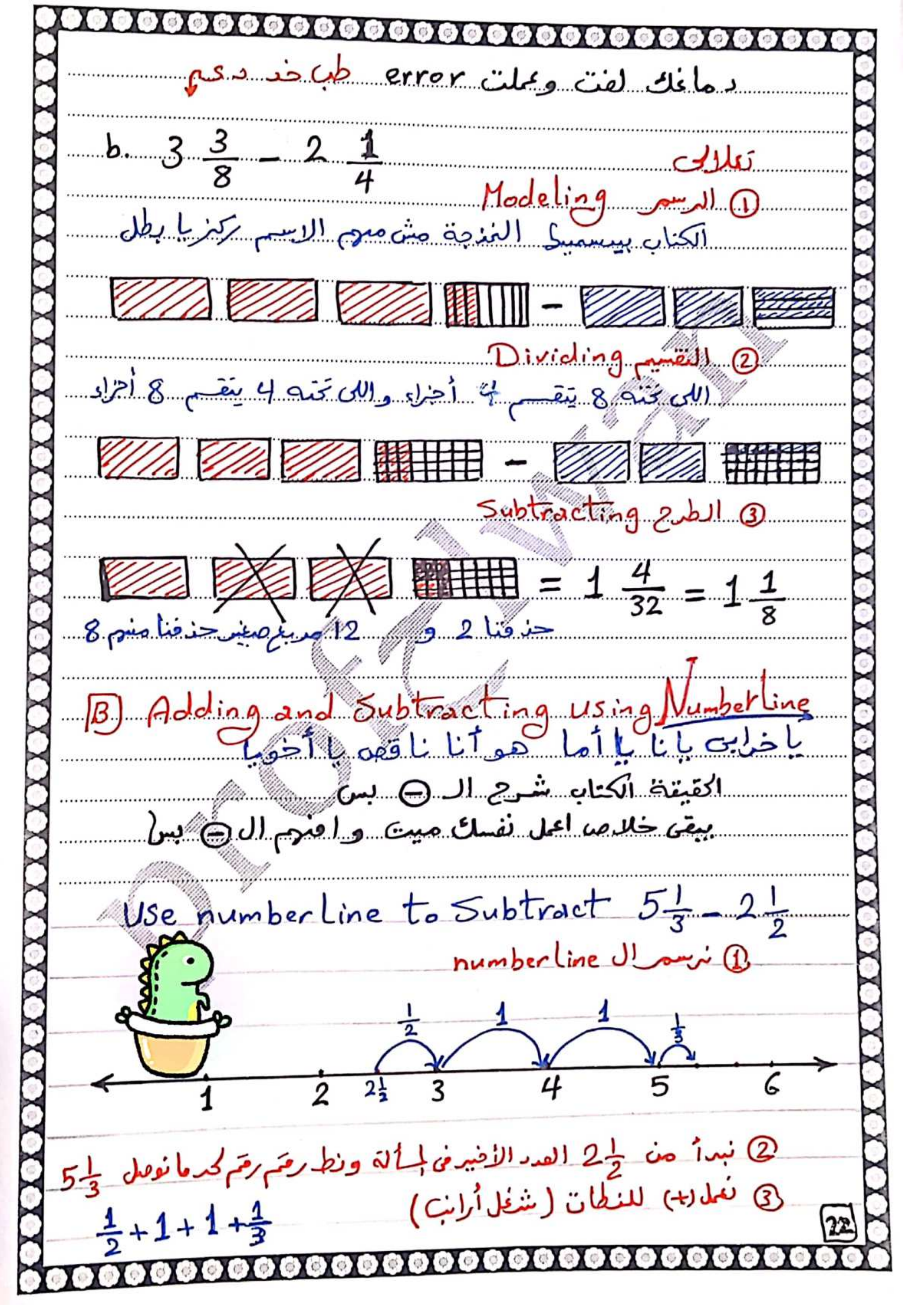
خد بالك الـ Fraction مرة يتقسم بالطول و مرة يتقسم بالعرض

• الخطوة التانية: نبص على الـ Denominators اللي مكتوب تحته 5 هيتقسم لجزئين واللي مكتوب تحته 2 هيتقسم لـ 5 أجزاء يعني بالعكس

والعكس في التاكس كدهون

نجمع بأة

$= 4\frac{3}{10}$



دماغك لفت وعملت error طب خد دي

b. $3\frac{3}{8} - 2\frac{1}{4}$

تعالى

① الرسم Modeling

الكتاب بيسميها النمذجة مش مهم الاسم ركز يا بطل

② التقسيم Dividing

اللي تحته 8 يتقسم 4 أجزاء واللي تحته 4 يتقسم 8 أجزاء

③ الطرح Subtracting

$= 1\frac{4}{32} = 1\frac{1}{8}$

حذفنا 2 و 12 مربع صغير حذفنا منهم 8

B) Adding and Subtracting using Numberline

ياخرابي يابا يا أما هو أنا ناقصه يا أخويا

الحقيقة الكتاب شرح ال ⊖ بس

يبقى خلاص اعمل نفسك ميت وافهم ال ⊖ بس

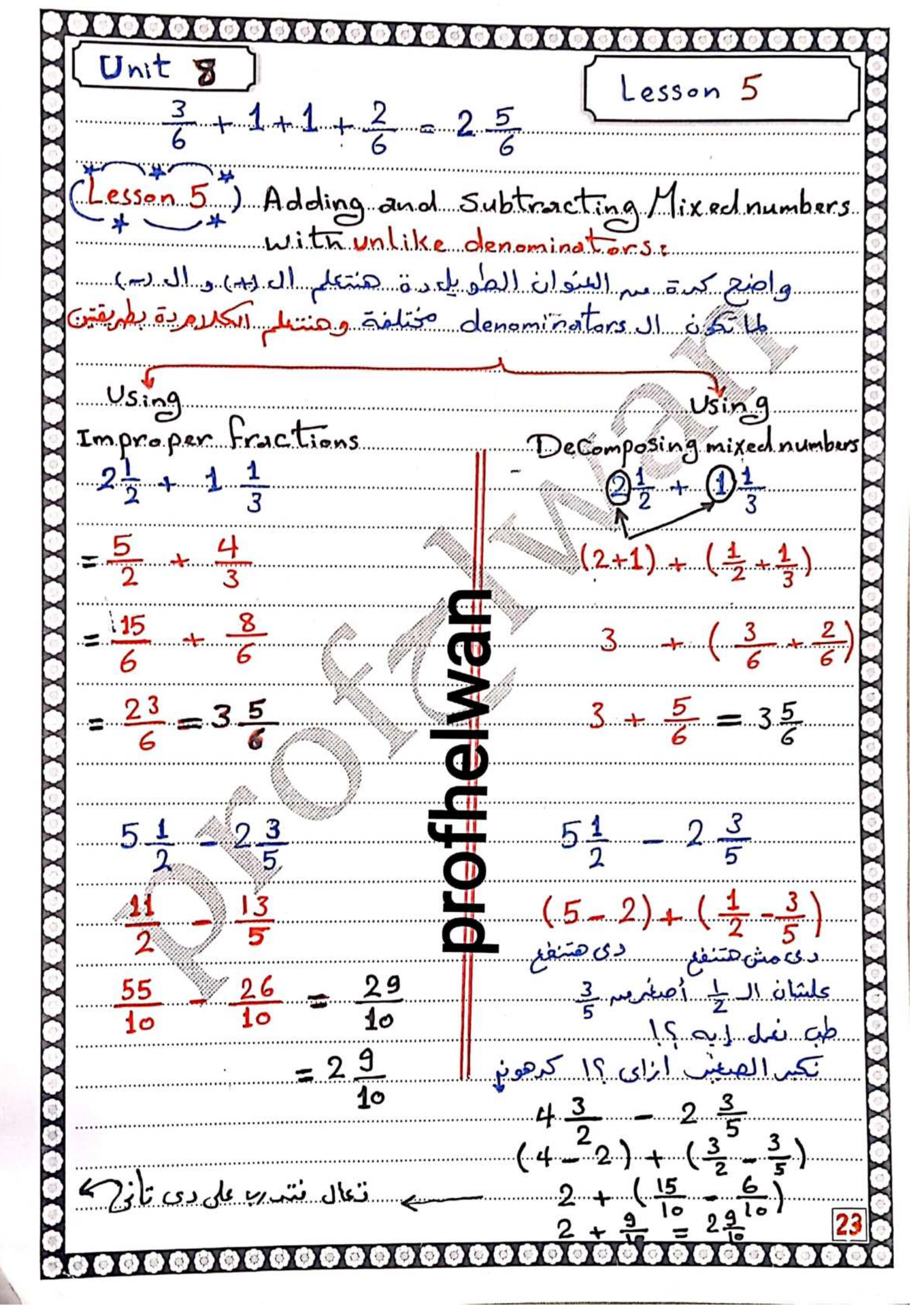
Use numberline to Subtract $5\frac{1}{3} - 2\frac{1}{2}$

① نرسم ال numberline

② نبدأ من $2\frac{1}{2}$ العدد الأخير في المسألة ونط رقم رقم لحد ما نوصل $5\frac{1}{3}$

③ نعمل (+) للنطات (شغل أرانب)

$\frac{1}{2} + 1 + 1 + \frac{1}{3}$



Unit 8

Lesson 5

$\frac{3}{6} + 1 + 1 + \frac{2}{6} = 2\frac{5}{6}$

Lesson 5) Adding and Subtracting Mixed numbers with unlike denominators:

واضح كده من العنوان الطويل ده هنتعلم الـ(+) والـ(−)
لما تكون الـ denominators مختلفة وهنتعلم الكلام ده بطريقتين

Using Improper fractions

$2\frac{1}{2} + 1\frac{1}{3}$

$= \frac{5}{2} + \frac{4}{3}$

$= \frac{15}{6} + \frac{8}{6}$

$= \frac{23}{6} = 3\frac{5}{6}$

$5\frac{1}{2} - 2\frac{3}{5}$

$\frac{11}{2} - \frac{13}{5}$

$\frac{55}{10} - \frac{26}{10} = \frac{29}{10}$

$= 2\frac{9}{10}$

تعال نتدرب على دى تانى ←

Using Decomposing mixed numbers

$2\frac{1}{2} + 1\frac{1}{3}$

$(2+1) + (\frac{1}{2} + \frac{1}{3})$

$3 + (\frac{3}{6} + \frac{2}{6})$

$3 + \frac{5}{6} = 3\frac{5}{6}$

$5\frac{1}{2} - 2\frac{3}{5}$

$(5-2) + (\frac{1}{2} - \frac{3}{5})$

دى هتنفع — دى مش هتنفع

علشان الـ $\frac{1}{2}$ أصغر من $\frac{3}{5}$

طب نعمل إيه ؟!

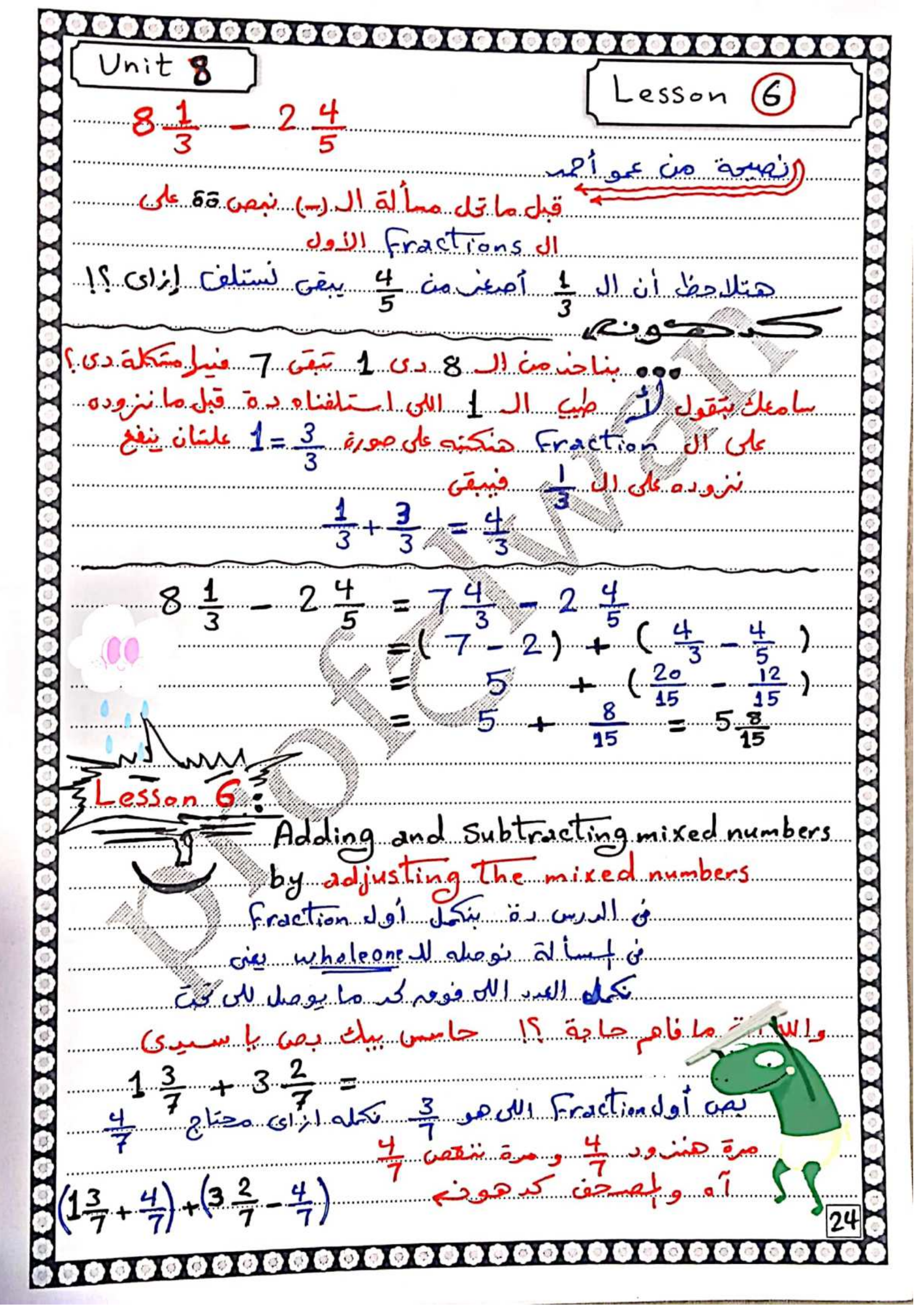
نكسر الصحيح ازاى ؟! كده هوه

$4\frac{3}{2} - 2\frac{3}{5}$

$(4-2) + (\frac{3}{2} - \frac{3}{5})$

$2 + (\frac{15}{10} - \frac{6}{10})$

$2 + \frac{9}{10} = 2\frac{9}{10}$



Unit 8

Lesson 6

$8\frac{1}{3} - 2\frac{4}{5}$

نصيحة من عمو أحمد

قبل ما تحل مسألة الـ(-) نبص على

الـ Fractions الأول

هتلاحظ أن الـ $\frac{1}{3}$ أصغر من $\frac{4}{5}$ يبقى نستلف إزاى ؟!

كده هوه

... بناخد من الـ 8 دى 1 تبقى 7 فين المشكلة دى ؟

سامعك بتقول لأ طيب الـ 1 اللى استلفناه دة قبل ما نزوده

على الـ Fraction هنكتبه على صورة $1=\frac{3}{3}$ علشان ينفع

نزوده على الـ $\frac{1}{3}$ فيبقى

$$\frac{1}{3}+\frac{3}{3}=\frac{4}{3}$$

$$8\frac{1}{3} - 2\frac{4}{5} = 7\frac{4}{3} - 2\frac{4}{5}$$
$$= (7-2) + \left(\frac{4}{3} - \frac{4}{5}\right)$$
$$= 5 + \left(\frac{20}{15} - \frac{12}{15}\right)$$
$$= 5 + \frac{8}{15} = 5\frac{8}{15}$$

Lesson 6:

Adding and Subtracting mixed numbers by adjusting the mixed numbers

فى الدرس دة بنكمل أول Fraction

فى المسألة نوصله للـ whole one يعنى

نكمل العدد اللى فوقه كده ما يوصل للى تحت

والله ... ما فاهم حاجة ؟! حاسس بيك بص يا سيدى

$1\frac{3}{7} + 3\frac{2}{7} =$

بص أول الـ Fraction اللى هو $\frac{3}{7}$ نكمله ازاى محتاج $\frac{4}{7}$

مرة هنزود $\frac{4}{7}$ ومرة بننقص $\frac{4}{7}$

آه والمصحف كده هوه

$$\left(1\frac{3}{7}+\frac{4}{7}\right)+\left(3\frac{2}{7}-\frac{4}{7}\right)$$

نفس الخطوة اللى فاتت

$\left(1\frac{3}{7}+\frac{4}{7}\right)+\left(3\frac{2}{7}-\frac{4}{7}\right)$ plus (+)

$1\frac{7}{7} \quad + \left(2\frac{9}{7}-\frac{4}{7}\right)$ زود / نقص

$2 \quad + \quad 2\frac{5}{7} = 4\frac{5}{7}$

كمان واحدة ... علشان خاطري بلاش

$5\frac{2}{7} - 2\frac{4}{7}$ → هكمل دي

Minus (−)

$\left(5\frac{2}{7}+\frac{6}{7}\right)-\left(2\frac{4}{7}+\frac{6}{7}\right)$ زود / زود

$5\frac{8}{7} \quad - \quad 2\frac{7}{7} = 5\frac{8}{7} - 3$

$= 2\frac{8}{7} = 3\frac{1}{7}$

وبعدين يعني كل دى طرق وآخرتلى معاكم يامدرسين!

ياابني ركز على طريقة واحدة واتدرب عليها كويس

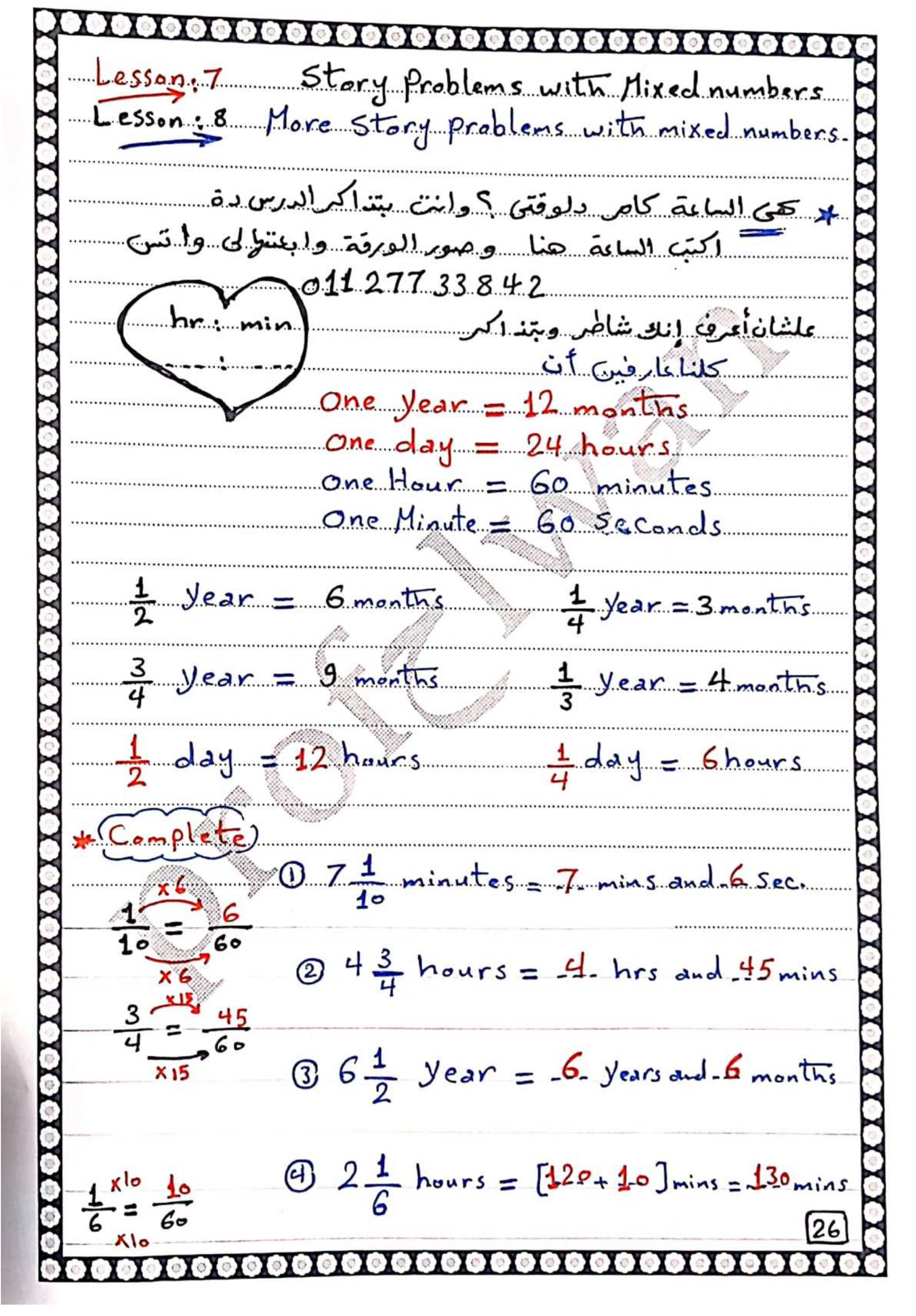
وانتي ياماما

وانت يابابا من حقك شرعا وقانونا وعلى المذاهب الأربعة

إنك تقطعي الورقه دى وترميها من البلكونة

بشرط نكون فهمنا الورقة اللى قبلها

سلامو عليكو



Lesson: 7 → Story Problems with Mixed numbers

Lesson: 8 → More Story problems with mixed numbers.

* هى الساعة كام دلوقتى ؟ وانت بتذاكر الدرس دة
اكتب الساعة هنا وصور الورقة وابعتلى واتس
011 277 33 842

hr : min
--- : ---

علشان أعرف إنك شاطر وبتذاكر

كلنا عارفين أن

One year = 12 months

One day = 24 hours

One Hour = 60 minutes

One Minute = 60 seconds

$\frac{1}{2}$ year = 6 months $\quad$ $\frac{1}{4}$ year = 3 months

$\frac{3}{4}$ year = 9 months $\quad$ $\frac{1}{3}$ year = 4 months

$\frac{1}{2}$ day = 12 hours $\quad$ $\frac{1}{4}$ day = 6 hours

* Complete

① $7\frac{1}{10}$ minutes = 7 mins and 6 sec.

$\frac{1}{10} \xrightarrow{\times 6} \frac{6}{60}$

② $4\frac{3}{4}$ hours = 4 hrs and 45 mins

$\frac{3}{4} \xrightarrow{\times 15} \frac{45}{60}$

③ $6\frac{1}{2}$ year = 6 years and 6 months

④ $2\frac{1}{6}$ hours = [120 + 10] mins = 130 mins

$\frac{1}{6} \xrightarrow{\times 10} \frac{10}{60}$

⑤ 80 minutes = --- hour

$$\frac{80}{60} = 1\frac{20}{60} = 1\frac{1}{3}$$

Lesson 8 : More Story Problems

تين شوكى

(1) Habiba is planting three plume thistle plants it took her $\frac{5}{6}$ minute to plant the first one. The Second plant took $\frac{1}{12}$ min Longer to plant than The first. The third plant took $\frac{1}{10}$ Less than time to plant The second one. How Long did it take to plant The third plume thistle?

Time of second = $\frac{5}{6} + \frac{1}{12} = \frac{10}{12} + \frac{1}{12} = \frac{11}{12}$ min

Time of Third = $\frac{11}{12} - \frac{1}{10} = \frac{55}{60} - \frac{6}{60} = \frac{49}{60}$ mins

= 49 seconds

(2) Mona walked $3\frac{3}{4}$ Km on Monday, $4\frac{1}{3}$ Km on Tuseday and $2\frac{7}{12}$ Km on wednesday. what distance did she walk in all?

Total distance = $3\frac{3}{4} + 4\frac{1}{3} +$ ......

$= (3 + 4 + 2) + (\frac{3}{4} + \frac{1}{3} + \frac{7}{12})$

$= 9 + (\frac{9}{12} + \frac{4}{12} + \frac{7}{12})$

$= 9 + \frac{20}{12}$

$= 9 + 1\frac{8}{12} = 10\frac{8}{12} = 10\frac{2}{3}$

ادعوا لي دعوة من القلب .... بفك الكرب

1) Choose the correct answer:

1. The two like denominator fractions which are equivalent to the two fractions $\frac{2}{5}, \frac{3}{10}$ are …………………

   A) $\frac{4}{10}, \frac{3}{10}$ B) $\frac{2}{5}, \frac{1}{5}$ C) $\frac{2}{5}, \frac{3}{5}$ D) $\frac{8}{20}, \frac{5}{20}$

2. The smallest like denominator of $\frac{2}{3}$ and $\frac{4}{5}$ is ………..

   A) 20 B) 15 C) 12 D) 40

3. The fractions which are equivalent to $\frac{5}{6}$ and $\frac{7}{8}$ with the like denominator are ………..

   A) $\frac{15}{18}, \frac{14}{18}$ B) $\frac{20}{48}, \frac{42}{48}$ C) $\frac{10}{12}, \frac{10}{12}$ D) $\frac{20}{24}, \frac{21}{24}$

4. $\frac{5}{6} + \frac{3}{7}$ is estimated as …………….

   A) 1 + 1 B) $\frac{1}{2}, \frac{1}{2}$ C) 1 + 0 D) $1\frac{1}{2}$

5. Estimate the sum of $\frac{3}{8} + \frac{4}{7}$ using benchmarks, the sum is ………….

   A) 2 B) $1\frac{1}{2}$ C) 1 D) $\frac{1}{2}$

6. Estimate the difference $\frac{9}{10} - \frac{7}{8}$ using benchmarks, the difference is ………….

   A) 1 B) 0 C) $\frac{1}{2}$ D) 2

7. When estimate the sum of $\frac{8}{10} + \frac{2}{5}$ is about $1\frac{1}{2}$, the estimation is ………………

   A) overestimate b) underestimate

8 $\frac{2}{5} + \frac{3}{10}$ = ...

A $\frac{5}{15}$ B $\frac{7}{10}$ C $\frac{5}{10}$ D $\frac{1}{2}$

9 $\frac{3}{4} - \frac{5}{8}$ = ...

A $\frac{1}{4}$ B $\frac{1}{8}$ C $\frac{3}{8}$ D $\frac{5}{8}$

10 $\frac{5}{9} + \frac{1}{3}$ = ...

A $\frac{7}{9}$ B $\frac{6}{12}$ C $\frac{8}{9}$ D $\frac{5}{27}$

11 $\frac{4}{5} - \frac{3}{4}$ = ...

A $\frac{7}{20}$ B $\frac{15}{20}$ C $\frac{1}{20}$ D $\frac{3}{20}$

12 $1 - \frac{1}{4} - \frac{1}{6}$ = ...

A $\frac{7}{12}$ B $\frac{1}{12}$ C $\frac{5}{6}$ D $\frac{3}{4}$

13 $1 + \frac{1}{2} + \frac{3}{4}$ = ...

A $\frac{5}{6}$ B $2\frac{1}{4}$ C $2\frac{9}{20}$ D $2\frac{1}{2}$

14 *Equivalent fraction of* $\frac{2}{8}$ *is* ....

A $\frac{4}{8}$ B $\frac{2}{4}$ C $\frac{1}{4}$ D $\frac{4}{10}$

15 $\frac{6}{8} - \frac{......}{......} = \frac{1}{8}$

(A) $\frac{1}{8}$ (B) $\frac{4}{8}$ (C) $\frac{5}{8}$ (D) $\frac{6}{8}$

16 $1 - .... = \frac{5}{8}$

(A) $\frac{5}{8}$ (B) $\frac{3}{8}$ (C) $\frac{6}{8}$ (D) $\frac{8}{7}$

17 $4\frac{3}{7} + 1\frac{5}{7}$ = ...

(A) $5\frac{1}{7}$ (B) $6\frac{1}{7}$ (C) $5\frac{8}{14}$ (D) $6\frac{2}{7}$

18 $5\frac{5}{8} - 3\frac{2}{8}$ = ...

(A) $8\frac{7}{8}$ (B) $3\frac{3}{8}$ (C) $2\frac{1}{4}$ (D) $2\frac{3}{8}$

19 *Two fractions* $2\frac{5}{8}$ *and* $1\frac{3}{4}$ *with like denominators are ....*

(A) $2\frac{5}{16}$ and $1\frac{3}{16}$ (B) $1\frac{5}{8}$ and $2\frac{6}{8}$ (C) $2\frac{5}{8}$ and $1\frac{3}{8}$ (D) $2\frac{5}{8}$ and $1\frac{6}{8}$

20 $5\frac{4}{7} - 5\frac{1}{7}$ = ...

(A) 0 (B) $9\frac{3}{7}$ (C) $\frac{3}{7}$ (D) $1\frac{2}{7}$

21 $\frac{19}{5}$ *is equivalent to ....*

(A) $3\frac{3}{5}$ (B) $4\frac{1}{5}$ (C) $3\frac{5}{45}$ (D) $3\frac{4}{5}$

22 $3\frac{4}{7}$ can be reground as ....

A) 3 B) 4 C) $2\frac{11}{7}$ D) $2\frac{4}{7}$

23 $5\frac{1}{2} + 3\frac{1}{5}$ = ...

A) $8\frac{2}{7}$ B) $8\frac{7}{10}$ C) $8\frac{1}{2}$ D) $8\frac{2}{5}$

24 $1\frac{4}{5} - 1\frac{1}{20}$ = ...

A) $\frac{7}{20}$ B) $\frac{4}{3}$ C) $\frac{3}{4}$ D) $1\frac{1}{5}$

25 $X + 4\frac{1}{4} = 5\frac{1}{2}$, then X = ...

A) $\frac{1}{2}$ B) $\frac{1}{4}$ C) $1\frac{1}{2}$ D) $1\frac{1}{4}$

26 $5\frac{2}{7} + k = 6\frac{5}{7}$, then k = ...

A) $11\frac{7}{7}$ B) $1\frac{3}{7}$ C) $4\frac{3}{7}$ D) $5\frac{1}{7}$

27 If $4\frac{X}{6}$ is slightly greater than $4\frac{1}{2}$, then X can be ....

A) 4 B) 21 C) 5 D) 12

28 $2\frac{1}{3}$ hours = ... minutes.

A) 150 B) 120 C) 130 D) 140

29 $\frac{17}{3}$ *is equivalent to ....*

A) $3\frac{1}{6}$ B) $7\frac{1}{2}$ C) $3\frac{2}{5}$ D) $5\frac{2}{3}$

30 $5\frac{3}{7} + 2\frac{6}{11}$ *can estimated as ....*

A) 7 B) $7\frac{1}{2}$ C) 8 D) $8\frac{1}{2}$

31 $\frac{3}{5} + \frac{2}{5}$ = ...

A) $\frac{7}{14}$ B) 1 C) $\frac{34}{77}$ D) $1\frac{7}{7}$

32 *Which of the following is Overestimate?*

A) $\frac{9}{8} + \frac{1}{3}$ is about 1

C) $5\frac{1}{7} + \frac{1}{4}$ is about 0

B) $\frac{2}{5} + \frac{3}{8}$ is about 1

D) $\frac{10}{12} + \frac{4}{5}$ is about 1

33 $\frac{9}{12} - \frac{5}{12}$ = ...

A) 4 B) $\frac{1}{3}$ C) $\frac{14}{12}$ D) $\frac{1}{4}$



34 $\frac{1}{4} + \frac{8}{9}$ *is estimated as ....*

A) 0 B) $\frac{1}{2}$ C) 1 D) $1\frac{1}{2}$

35 The mixed number $2\frac{1}{7}$ can be regrouped as ....

A) $1\frac{8}{7}$ B) $2\frac{8}{7}$ C) $1\frac{1}{14}$ D) $1\frac{7}{8}$

36 $1\frac{1}{2} + 7\frac{1}{2}$ = ...

A) $8\frac{1}{2}$ B) 9 C) 8 D) 10

37 The equivalent of $\frac{3}{6}$ is ....

A) $\frac{3}{5}$ B) $\frac{2}{6}$ C) $\frac{15}{30}$ D) $\frac{2}{5}$

38 $5 - \frac{1}{2} - \frac{1}{3}$ = ...

A) $4\frac{5}{6}$ B) $4\frac{1}{2}$ C) $4\frac{1}{6}$ D) $4\frac{3}{4}$

39 If $3\frac{1}{7} = 2\frac{X}{7}$ by regrouping , then X = ...

A) 1 B) 2 C) 3 D) 8

40 $2\frac{1}{2}$ days = ... hours.

A) $\frac{5}{2}$ B) 48 C) 36 D) 60

41 The simplest form of $\frac{12}{18}$ is ....

A) $\frac{12}{18}$ B) $\frac{6}{9}$ C) $\frac{8}{12}$ D) $\frac{2}{3}$

2) Complete:

1. $\frac{7}{12} - \frac{3}{12}$ = ……………….
2. $1 - \frac{1}{8}$ = ……………….
3. The LCM of denominators of $\frac{3}{4}$ and $\frac{3}{5}$ is ……….
4. $1 - \frac{1}{3} - \frac{1}{5}$ = ……………….
5. $\frac{1}{6} + \frac{5}{8}$ = ……………….
6. $\frac{7}{12} + \frac{9}{10}$ is estimated as ……………..
7. $7\frac{2}{7} + 1\frac{3}{7}$ = ……………….
8. $2\frac{1}{4} - 1\frac{3}{4}$ = ……………….
9. If $X + 2\frac{1}{8} = 5\frac{3}{8}$, then X = …………
10. $\frac{1}{5}$ minute = ……………seconds.
11. $2\frac{1}{4}$ years = …………… months.
12. 18 hours = …………… Day.

13. $5\frac{1}{2} - \frac{3}{4}$ = ...

14. $2\frac{1}{4} + 2\frac{1}{4}$ = ...

15. $\frac{1}{2} + \frac{2}{5}$ = ...

16. Simplest form of $\frac{15}{27}$ is ....

17. $\frac{17}{10} - \frac{4}{10}$ = ...

18. $\frac{8}{32} = \frac{4}{\text{..........}}$

19. $7\frac{1}{10}$ minutes = ... minutes and .... Seconds.

20. $4\frac{3}{4}$ hours = ... hours and .... minutes.

21. $6\frac{1}{2}$ years = ... years and .... months.

22. $3\frac{1}{2} - 2\frac{3}{5}$ = ...

23. $9\frac{1}{4}$ - .... = $3\frac{3}{4}$

24. $\frac{3}{4}$ years = ... Months.

25. $2\frac{b}{9}$ is almost 3 estimate for b = ...

3) Answer the following questions

1. $1\frac{3}{5} + 3\frac{1}{5} =$ ....

2. $2\frac{5}{6} + 2\frac{3}{6} =$ ....

3. $3\frac{2}{5} - 1\frac{4}{5} =$ ....

4. $5\frac{1}{4} - 2\frac{3}{4} =$ ....

5. $4\frac{5}{6} - 2\frac{1}{6} =$ ....

6. $6\frac{1}{3} - 3\frac{4}{5} =$ ....

7. $2\frac{7}{8} - 1\frac{1}{2} =$ ....

8. $9\frac{1}{4} - 8\frac{3}{5} =$ ....

9. Estimate: $7\frac{1}{2} - 2\frac{7}{8} =$ ....

10. Estimate: $4\frac{1}{4} - 2\frac{5}{6} =$ ....

11. $3\frac{1}{5} + b = 5\frac{3}{5}$ $b =$ ....

12. $x - \frac{2}{8} = \frac{6}{8}$ $x =$ ....

13 $2\frac{2}{3} - h = 2$ $h = \dots\dots\dots$

14 $a + 5\frac{5}{6} = 9\frac{1}{12}$ $a = \dots\dots\dots$

15 $8\frac{7}{10} - b = 4\frac{9}{20}$ $h = \dots\dots\dots$

16 *Marvina spend $\frac{1}{2}$ of her money to buy candy and $\frac{1}{3}$ of it to buy toys.*

What fraction of her money is left?



....

....

....

17 *Marwan studies math for $3\frac{1}{2}$ hours and science for 90 minutes.*

How many hours did Marwan study in all?

....

....

....

18 *Soha likes chocolate. One day she bought a chocolate and ate $\frac{5}{9}$ of it in the morning and $\frac{1}{3}$ in the evining.*

How much part of the chocolate has she eaten?

....

....

....

19 *Omnia purchases $\frac{8}{9}$ kg of fava beans. She uses $\frac{3}{4}$ kg of the fava beans to make falafel.*

How many kilograms of fava beans are left?

....

....

....

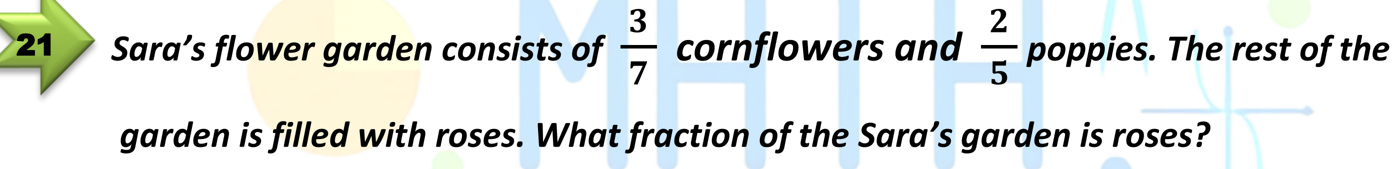
20 *Ahmed ate $\frac{1}{3}$ of the cake and Hazem $\frac{3}{8}$*

How much of the cake has been eaten and how much is left?

....

....

....



21 *Sara's flower garden consists of $\frac{3}{7}$ cornflowers and $\frac{2}{5}$ poppies. The rest of the garden is filled with roses. What fraction of the Sara's garden is roses?*

....

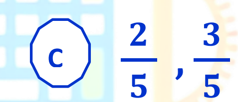
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1) Choose the correct answer:

1. The two like denominator fractions which are equivalent to the two fractions $\frac{2}{5}$, $\frac{3}{10}$ are ………………..

A) $\frac{4}{10}$, $\frac{3}{10}$ B) $\frac{2}{5}$, $\frac{1}{5}$ C) $\frac{2}{5}$, $\frac{3}{5}$ D) $\frac{8}{20}$, $\frac{5}{20}$

2. The smallest like denominator of $\frac{2}{3}$ and $\frac{4}{5}$ is ………..



A) 20 B) 15 C) 12 D) 40

3. The fractions which are equivalent to $\frac{5}{6}$ and $\frac{7}{8}$ with the like denominator are ………..

A) $\frac{15}{18}$, $\frac{14}{18}$ B) $\frac{20}{48}$, $\frac{42}{48}$ C) $\frac{10}{12}$, $\frac{10}{12}$ D) $\frac{20}{24}$, $\frac{21}{24}$

4. $\frac{5}{6} + \frac{3}{7}$ is estimated as ……………

A) 1 + 1 B) $\frac{1}{2}$, $\frac{1}{2}$ C) 1 + 0 D) $1\frac{1}{2}$

5. Estimate the sum of $\frac{3}{8} + \frac{4}{7}$ using benchmarks, the sum is ………….

A) 2 B) $1\frac{1}{2}$ C) 1 D) $\frac{1}{2}$

6. Estimate the difference $\frac{9}{10} - \frac{7}{8}$ using benchmarks, the difference is ………….

A) 1 B) 0 C) $\frac{1}{2}$ D) 2

7. When estimate the sum of $\frac{8}{10} + \frac{2}{5}$ is about $1\frac{1}{2}$, the estimation is ………………

A) overestimate b) underestimate

8. $\frac{2}{5} + \frac{3}{10} =$ ....

Ⓐ $\frac{5}{15}$ Ⓑ $\frac{7}{10}$ Ⓒ $\frac{5}{10}$ Ⓓ $\frac{1}{2}$

9. $\frac{3}{4} - \frac{5}{8} =$ ....

Ⓐ $\frac{1}{4}$ Ⓑ $\frac{1}{8}$ Ⓒ $\frac{3}{8}$ Ⓓ $\frac{5}{8}$

10. $\frac{5}{9} + \frac{1}{3} =$ ....

Ⓐ $\frac{7}{9}$ Ⓑ $\frac{6}{12}$ Ⓒ $\frac{8}{9}$ Ⓓ $\frac{5}{27}$

11. $\frac{4}{5} - \frac{3}{4} =$ ....

Ⓐ $\frac{7}{20}$ Ⓑ $\frac{15}{20}$ Ⓒ $\frac{1}{20}$ Ⓓ $\frac{3}{20}$

12. $1 - \frac{1}{4} - \frac{1}{6} =$ ....

Ⓐ $\frac{7}{12}$ Ⓑ $\frac{1}{12}$ Ⓒ $\frac{5}{6}$ Ⓓ $\frac{3}{4}$

13. $1 + \frac{1}{2} + \frac{3}{4} =$ ....

Ⓐ $\frac{5}{6}$ Ⓑ $2\frac{1}{4}$ Ⓒ $2\frac{9}{20}$ Ⓓ $2\frac{1}{2}$

14. *Equivalent fraction of* $\frac{2}{8}$ *is* ....

Ⓐ $\frac{4}{8}$ Ⓑ $\frac{2}{4}$ Ⓒ $\frac{1}{4}$ Ⓓ $\frac{4}{10}$

15 $\frac{6}{8} - \frac{......}{......} = \frac{1}{8}$

A $\frac{1}{8}$ B $\frac{4}{8}$ C $\frac{5}{8}$ D $\frac{6}{8}$

16 $1 - .... = \frac{5}{8}$

A $\frac{5}{8}$ B $\frac{3}{8}$ C $\frac{6}{8}$ D $\frac{8}{7}$

17 $4\frac{3}{7} + 1\frac{5}{7} = ...$

A $5\frac{1}{7}$ B $6\frac{1}{7}$ C $5\frac{8}{14}$ D $6\frac{2}{7}$

18 $5\frac{5}{8} - 3\frac{2}{8} = ...$

A $8\frac{7}{8}$ B $3\frac{3}{8}$ C $2\frac{1}{4}$ D $2\frac{3}{8}$

19 *Two fractions $2\frac{5}{8}$ and $1\frac{3}{4}$ with like denominators are ....*

A $2\frac{5}{16}$ and $1\frac{3}{16}$ B $1\frac{5}{8}$ and $2\frac{6}{8}$ C $2\frac{5}{8}$ and $1\frac{3}{8}$ D $2\frac{5}{8}$ and $1\frac{6}{8}$

20 $5\frac{4}{7} - 5\frac{1}{7} = ...$

A 0 B $9\frac{3}{7}$ C $\frac{3}{7}$ D $1\frac{2}{7}$

21 $\frac{19}{5}$ *is equivalent to ....*

A $3\frac{3}{5}$ B $4\frac{1}{5}$ C $3\frac{5}{45}$ D $3\frac{4}{5}$

22 $3\frac{4}{7}$ can be regrounded as ....

A) 3 B) 4 C) $2\frac{11}{7}$ D) $2\frac{4}{7}$

23 $5\frac{1}{2} + 3\frac{1}{5}$ = ...

A) $8\frac{2}{7}$ B) $8\frac{7}{10}$ C) $8\frac{1}{2}$ D) $8\frac{2}{5}$

24 $1\frac{4}{5} - 1\frac{1}{20}$ = ...

A) $\frac{7}{20}$ B) $\frac{4}{3}$ C) $\frac{3}{4}$ D) $1\frac{1}{5}$

25 $X + 4\frac{1}{4} = 5\frac{1}{2}$, then X = ...

A) $\frac{1}{2}$ B) $\frac{1}{4}$ C) $1\frac{1}{2}$ D) $1\frac{1}{4}$

26 $5\frac{2}{7} + k = 6\frac{5}{7}$, then k = ...

A) $11\frac{7}{7}$ B) $1\frac{3}{7}$ C) $4\frac{3}{7}$ D) $5\frac{1}{7}$

27 If $4\frac{X}{6}$ is slightly greater than $4\frac{1}{2}$, then X can be ....

A) 4 B) 21 C) 5 D) 12

28 $2\frac{1}{3}$ hours = ... minutes.

A) 150 B) 120 C) 130 D) 140

29 $\frac{17}{3}$ *is equivalent to ....*

A) $3\frac{1}{6}$ B) $7\frac{1}{2}$ C) $3\frac{2}{5}$ D) $5\frac{2}{3}$

30 $5\frac{3}{7} + 2\frac{6}{11}$ *can estimated as ....*

A) 7 B) $7\frac{1}{2}$ C) 8 D) $8\frac{1}{2}$

31 $\frac{3}{5} + \frac{2}{5} =$ ....

A) $\frac{7}{14}$ B) 1 C) $\frac{34}{77}$ D) $1\frac{7}{7}$

32 *Which of the following is* ***Overestimate****?*

A) $\frac{9}{8} + \frac{1}{3}$ is about 1 C) $5\frac{1}{7} + \frac{1}{4}$ is about 0

B) $\frac{2}{5} + \frac{3}{8}$ is about 1 D) $\frac{10}{12} + \frac{4}{5}$ is about 1

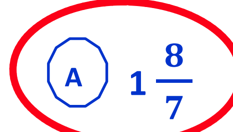
33 $\frac{9}{12} - \frac{5}{12} =$ ....

A) 4 B) $\frac{1}{3}$ C) $\frac{14}{12}$ D) $\frac{1}{4}$

34 $\frac{1}{4} + \frac{8}{9}$ *is estimated as ....*

A) 0 B) $\frac{1}{2}$ C) 1 D) $1\frac{1}{2}$

35 *The mixed number* $2\frac{1}{7}$ *can be regrouped as ....*



Ⓐ $1\frac{8}{7}$ Ⓑ $2\frac{8}{7}$ Ⓒ $1\frac{1}{14}$ Ⓓ $1\frac{7}{8}$

36 $1\frac{1}{2} + 7\frac{1}{2} =$ ....

Ⓐ $8\frac{1}{2}$ Ⓑ 9 Ⓒ 8 Ⓓ 10

37 *The equivalent of* $\frac{3}{6}$ *is ....*

Ⓐ $\frac{3}{5}$ Ⓑ $\frac{2}{6}$ Ⓒ $\frac{15}{30}$ Ⓓ $\frac{2}{5}$

38 $5 - \frac{1}{2} - \frac{1}{3} =$ *.................*

Ⓐ $4\frac{5}{6}$ Ⓑ $4\frac{1}{2}$ Ⓒ $4\frac{1}{6}$ Ⓓ $4\frac{3}{4}$

39 *If* $3\frac{1}{7} = 2\frac{X}{7}$ *by regrouping , then X = ...*

Ⓐ 1 Ⓑ 2 Ⓒ 3 Ⓓ 8

40 $2\frac{1}{2}$ *days = ... hours.*

Ⓐ $\frac{5}{2}$ Ⓑ 48 Ⓒ 36 Ⓓ 60

41 *The simplest form of* $\frac{12}{18}$ *is ....*

Ⓐ $\frac{12}{18}$ Ⓑ $\frac{6}{9}$ Ⓒ $\frac{8}{12}$ Ⓓ $\frac{2}{3}$

2) Complete:

1. $\frac{7}{12} - \frac{3}{12} = \frac{4}{12} = \frac{1}{3}$
2. $1 - \frac{1}{8} = \frac{7}{8}$
3. The LCM of denominators of $\frac{3}{4}$ and $\frac{3}{5}$ is 20
4. $1 - \frac{1}{3} - \frac{1}{5} = \frac{7}{15}$
5. $\frac{1}{6} + \frac{5}{8} = \frac{19}{24}$
6. $\frac{7}{12} + \frac{9}{10}$ is estimated as $1\frac{1}{2}$
7. $7\frac{2}{7} + 1\frac{3}{7} = 8\frac{5}{7}$
8. $2\frac{1}{4} - 1\frac{3}{4} = \frac{2}{4} = \frac{1}{2}$
9. If $X + 2\frac{1}{8} = 5\frac{3}{8}$, then $X = 3\frac{2}{8} = 3\frac{1}{4}$
10. $\frac{1}{5}$ minute = 12 seconds.
11. $2\frac{1}{4}$ years = 27 months.
12. 18 hours = $\frac{3}{4}$ Day.

13. $5\frac{1}{2} - \frac{3}{4} = \dots 4\frac{3}{4} \dots$

14. $2\frac{1}{4} + 2\frac{1}{4} = \dots 4\frac{2}{4} \dots = 4\frac{1}{2}$

15. $\frac{1}{2} + \frac{2}{5} = \dots \frac{9}{10} \dots$

16. Simplest form of $\frac{15}{27}$ is $\dots \frac{5}{9} \dots$

17. $\frac{17}{10} - \frac{4}{10} = \dots \frac{13}{10} \dots = 1\frac{3}{10}$

18. $\frac{8}{32} = \frac{4}{\dots 16 \dots}$

19. $7\frac{1}{10}$ minutes = …… 7 …… minutes and …… 6 …… Seconds.

20. $4\frac{3}{4}$ hours = …… 4 …… hours and …… 45 …… minutes.

21. $6\frac{1}{2}$ years = …… 6 …… years and …… 6 …… months.

22. $3\frac{1}{2} - 2\frac{3}{5} = \dots \frac{9}{10} \dots$

23. $9\frac{1}{4} - \dots 5\frac{1}{2} \dots = 3\frac{3}{4}$

24. $\frac{3}{4}$ years = …… 9 …… Months.

25. $2\frac{b}{9}$ is almost 3 estimate for b = …… 8 ……

3) Answer the following questions

1. $1\frac{3}{5} + 3\frac{1}{5} =$ .... $4\frac{4}{5}$

2. $2\frac{5}{6} + 2\frac{3}{6} =$ .... $4\frac{8}{6} = 5\frac{2}{6} = 5\frac{1}{3}$

3. $3\frac{2}{5} - 1\frac{4}{5} =$ .... $1\frac{3}{5}$

4. $5\frac{1}{4} - 2\frac{3}{4} =$ .... $2\frac{2}{4} = 2\frac{1}{2}$

5. $4\frac{5}{6} - 2\frac{1}{6} =$ .... $2\frac{4}{6} = 2\frac{2}{3}$

6. $6\frac{1}{3} - 3\frac{4}{5} =$ .... $2\frac{8}{15}$

7. $2\frac{7}{8} - 1\frac{1}{2} =$ .... $1\frac{3}{8}$

8. $9\frac{1}{4} - 8\frac{3}{5} =$ .... $\frac{13}{20}$

9. Estimate: $7\frac{1}{2} - 2\frac{7}{8} =$ .... $7\frac{1}{2} - 3 = 4\frac{1}{2}$

10. Estimate: $4\frac{1}{4} - 2\frac{5}{6} =$ .... $4 - 3 = 1$

11. $3\frac{1}{5} + b = 5\frac{3}{5}$ $b =$ .... $2\frac{2}{5}$

12. $x - \frac{2}{8} = \frac{6}{8}$ $x =$ .... $\frac{8}{8} = 1$

13 $2\frac{2}{3} - h = 2$ $h = \frac{2}{3}$

14 $a + 5\frac{5}{6} = 9\frac{1}{12}$ $a = 3\frac{3}{12} = 3\frac{1}{4}$

15 $8\frac{7}{10} - b = 4\frac{9}{20}$ $h = 4\frac{5}{20} = 4\frac{1}{4}$

16 Marvina spend $\frac{1}{2}$ of her money to buy candy and $\frac{1}{3}$ of it to buy toys.

What fraction of her money is left?

$1 - \frac{1}{2} - \frac{1}{3} = \frac{6}{6} - \frac{3}{6} - \frac{2}{6} = \frac{1}{6}$

17 Marwan studies math for $3\frac{1}{2}$ hours and science for 90 minutes.

How many hours did Marwan study in all?

90 min. $= 1\frac{1}{2}$ hours

$3\frac{1}{2} + 1\frac{1}{2} = 4\frac{2}{2} = 5$ hours

18 Soha likes chocolate. One day she bought a chocolate and ate $\frac{5}{9}$ of it in the morning and $\frac{1}{3}$ in the evining.

How much part of the chocolate has she eaten?

$\frac{5}{9} + \frac{1 \times 3}{3 \times 3} = \frac{5}{9} + \frac{3}{9} = \frac{8}{9} = 1\frac{1}{9}$

19 *Omnia purchases $\frac{8}{9}$ kg of fava beans. She uses $\frac{3}{4}$ kg of the fava beans to make falafel.*

How many kilograms of fava beans are left?

$\frac{8}{9} - \frac{3}{4} = \frac{32}{36} - \frac{27}{36} = \frac{5}{36}$ kg

20 *Ahmed ate $\frac{1}{3}$ of the cake and Hazem $\frac{3}{8}$*

How much of the cake has been eaten and how much is left?

$\frac{1}{3} + \frac{3}{8} = \frac{8}{24} + \frac{9}{24} = \frac{17}{24}$

$1 - \frac{17}{24} = \frac{7}{24}$ of the cake

21 *Sara's flower garden consists of $\frac{3}{7}$ cornflowers and $\frac{2}{5}$ poppies. The rest of the garden is filled with roses. What fraction of the Sara's garden is roses?*

$\frac{3}{7} + \frac{2}{5} = \frac{15}{35} + \frac{14}{35} = \frac{29}{35}$

$1 - \frac{29}{35} = \frac{6}{35}$ of the garden

Choose the correct answer:

1 $\frac{2}{5}$, $\frac{3}{15}$ are equivalent to ……

- (a) $\frac{5}{15},\frac{3}{15}$
- (b) $\frac{2}{5},\frac{1}{5}$
- (c) $\frac{2}{5},\frac{3}{5}$
- (d) $\frac{8}{20},\frac{5}{20}$

2 The smallest like denominator of $\frac{3}{4}$ and $\frac{4}{5}$ is ……

- (a) 20
- (b) 10
- (c) 12
- (d) 40

3 $\frac{9}{10}+\frac{2}{5}$ is about $1\frac{1}{2}$

- (a) Underestimate
- (b) Overestimate

4 $\frac{3}{5}+\frac{6}{10}$ is about 1

- (a) Underestimate
- (b) Overestimate

5 $\frac{5}{6}+\frac{3}{7}$ is estimated as ……

- (a) 1 + 1
- (b) $\frac{1}{2}+\frac{1}{2}$
- (c) 1 + 0
- (d) $1+\frac{1}{2}$

6 $\frac{3}{8}+\frac{4}{5}$ is estimated as ……

- (a) 2
- (b) $1\frac{1}{2}$
- (c) 1
- (d) $\frac{1}{2}$

7 $\frac{3}{4}-\frac{1}{3}$ = …………

- (a) $\frac{1}{2}$
- (b) $\frac{1}{4}$
- (c) $\frac{5}{12}$
- (d) $\frac{1}{3}$

8 $\frac{2}{5}+\frac{3}{10}$ = …………

- (a) $\frac{5}{15}$
- (b) $\frac{7}{10}$
- (c) $\frac{5}{10}$
- (d) $\frac{1}{2}$

9 $\frac{3}{4}-\frac{5}{8}$ = …………

- (a) $\frac{1}{4}$
- (b) $\frac{1}{8}$
- (c) $\frac{3}{8}$
- (d) $\frac{5}{8}$

10

$5\frac{1}{2}+3\frac{1}{5}=$ ....

(a) $8\frac{2}{7}$ (b) $8\frac{7}{10}$ (c) $8\frac{1}{2}$ (d) $8\frac{2}{5}$

11

$1\frac{4}{5}-1\frac{1}{20}=$ ....

(a) $\frac{7}{20}$ (b) $\frac{4}{3}$ (c) $\frac{3}{4}$ (d) $1\frac{1}{5}$

12

Which of the following is overestimate?

(a) $\frac{8}{7}+\frac{5}{9}=1\frac{1}{2}$ (b) $\frac{4}{7}+\frac{3}{5}=1$ (c) $\frac{1}{6}+\frac{6}{11}=\frac{1}{2}$ (d) $\frac{4}{9}+\frac{3}{7}=1$

13

$\frac{5}{7}-$ .... $=\frac{1}{7}$

(a) $\frac{1}{7}$ (b) $\frac{4}{7}$ (c) $\frac{5}{7}$ (d) $\frac{6}{7}$

14

$4\frac{2}{3}+1\frac{2}{5}=5+1\frac{2}{5}-$ ....

(a) $\frac{2}{3}$ (b) $\frac{2}{5}$ (c) $\frac{3}{5}$ (d) $\frac{1}{3}$

15

If $3\frac{2}{b}$ is estimated as 3, then b can equal ......

(a) 1 (b) 2 (c) 4 (d) 15

16

$4\frac{3}{7}+1\frac{5}{7}=$ ....

(a) $5\frac{1}{7}$ (b) $6\frac{1}{7}$ (c) $5\frac{8}{14}$ (d) $6\frac{2}{7}$

17

$5\frac{5}{8}-3\frac{2}{8}=$ ....

(a) $8\frac{7}{8}$ (b) $3\frac{3}{8}$ (c) $2\frac{1}{4}$ (d) $2\frac{3}{8}$

18

If $4\frac{3}{5}+K=6\frac{2}{5}$, then K = ...

(a) $1\frac{4}{5}$ (b) 11 (c) $2\frac{1}{5}$ (d) $1\frac{3}{5}$

19 Two fractions: $2\frac{5}{8}$, $1\frac{3}{4}$ with like denominators are ....

ⓐ $2\frac{5}{16},1\frac{3}{16}$ ⓑ $1\frac{5}{8},2\frac{6}{8}$ ⓒ $2\frac{5}{8},1\frac{3}{8}$ ⓓ $2\frac{5}{8},1\frac{6}{8}$

20 $8\frac{3}{5}+1\frac{1}{12}$ can estimated as ....

ⓐ 9 ⓑ $9\frac{1}{2}$ ⓒ 10 ⓓ $8\frac{1}{2}$

21 If $5\frac{n}{18}$ is about 5, then n may be ....

ⓐ 8 ⓑ 17 ⓒ 2 ⓓ 12

22 $9\frac{4}{7}-9\frac{1}{7}$ = ...

ⓐ 0 ⓑ $9\frac{3}{7}$ ⓒ $\frac{3}{7}$ ⓓ $1\frac{2}{7}$

23 $\frac{19}{5}$ is equivalent to ....

ⓐ $3\frac{3}{5}$ ⓑ $4\frac{1}{5}$ ⓒ $3\frac{5}{5}$ ⓓ $3\frac{4}{5}$

24 $3\frac{4}{7}$ can be written as ....

ⓐ 3 ⓑ 4 ⓒ $2\frac{11}{7}$ ⓓ $2\frac{4}{7}$

25 If $4\frac{x}{22}$ is slightly greater than $4\frac{1}{2}$, then x can be ....

ⓐ 10 ⓑ 21 ⓒ 5 ⓓ 12

26 $2\frac{1}{3}$ hours = ... minutes.

ⓐ 150 ⓑ 120 ⓒ 130 ⓓ 140

27 $\frac{17}{3}$ is equivalent to ....

ⓐ $\frac{1}{6}$ ⓑ $7\frac{1}{2}$ ⓒ $3\frac{2}{5}$ ⓓ $5\frac{2}{3}$

28 If $9\frac{x}{5}$ is little greater than $9\frac{1}{2}$, then x can be ....

ⓐ 3 ⓑ 5 ⓒ 2 ⓓ 1



Essay Problems:

1	**Omnia purchased $\frac{4}{5}$ kg of fava beans. She uses $\frac{3}{4}$ kg of them to make falafel. How many kilograms of fava beans are left?** ………………………………………………………………………
2	**Wafaa's flower garden consists of $\frac{1}{4}$ cornflowers and $\frac{2}{5}$ poppies. The rest of the garden is filled with roses. What fraction represents roses?** ………………………………………………………………………
3	**A road is 10 km long. If $4\frac{5}{7}$ km is paved. How many kilometers isn't paved?** ………………………………………………………………………
4	**Abeer is mixing juice for a celebration. She mixes $5\frac{3}{4}$ liters of fruit juice concentrate with $1\frac{1}{2}$ liters more water. She needs 12 liters of the mixture for the celebration. Does she have enough? Explain.** ………………………………………………………………………
5	**Ahmed spends $1\frac{1}{10}$ hours in studying Science and 20 minutes more in studying Math. How many minutes does he spend to study the two subjects together?** ……………………………………………………………………… ………………………………………………………………………

Test on Unit (7)

[A] Choose the correct answer:

(1) $\frac{5}{7} + \frac{5}{14}$ = ...

ⓐ $\frac{2}{7}$ ⓑ $\frac{13}{14}$ ⓒ $\frac{8}{21}$ ⓓ $\frac{8}{14}$

(2) $\frac{15}{16}$ is closest to the benchmark fraction ....

ⓐ 0 ⓑ $\frac{1}{2}$ ⓒ 1 ⓓ $1\frac{1}{2}$

(3) Using the benchmark fraction estimate: $\frac{3}{5} - \frac{1}{8}$

ⓐ 0 ⓑ 1 ⓒ $1\frac{1}{2}$ ⓓ $\frac{1}{2}$

(4) $\frac{5}{6} - \frac{3}{5}$ = ...

ⓐ 2 ⓑ $\frac{7}{30}$ ⓒ $\frac{2}{30}$ ⓓ $\frac{2}{25}$

(5) $\frac{5}{8} - \frac{1}{2}$ = ...

ⓐ 1 ⓑ $\frac{2}{3}$ ⓒ $1\frac{1}{8}$ ⓓ $\frac{1}{8}$

(6) Using the benchmark fraction estimate: $\frac{12}{13} + \frac{11}{24}$

ⓐ 0 ⓑ 1 ⓒ $1\frac{1}{2}$ ⓓ $\frac{1}{2}$

(7) $\frac{6}{16} + \frac{1}{4}$ = ...

ⓐ $\frac{7}{16}$ ⓑ $\frac{7}{20}$ ⓒ $\frac{5}{8}$ ⓓ $\frac{1}{8}$





[B] Complete:

(1) The smallest common denominator of $\frac{1}{3}$ and $\frac{3}{5}$ is ....

(2) $\frac{1}{6}+\frac{11}{12}+\frac{1}{3}$ = ...

(3) Estimate $\frac{16}{17}+\frac{4}{5}$ using the benchmark fractions is ....

(4) $\frac{3}{22}+\frac{8}{11}$ = ...

(5) $\frac{7}{10}-\frac{9}{20}-\frac{1}{5}$ = ...



[C] Write the equivalent fraction for each pair:

(1) $\frac{5}{6}$, $\frac{8}{9}$ ....

(2) $\frac{2}{3}$, $\frac{2}{9}$ ....

(3) $\frac{3}{4}$, $\frac{4}{5}$ ....



[D] Story problems:

(1) A baker has $\frac{8}{9}$ kg of flour. He used $\frac{5}{6}$ kg. How much kg of flour was left? ....

(2) Ali has 12 balls 4 of them are blue, 3 are green, 3 are yellow, and the remaining are red. What is the fraction that represents the red balls? ....





Unit (7) Assessment

1. Choose the correct answer.

a. $\frac{5}{6} - \frac{3}{5} =$ ______

A. $\frac{8}{30}$ B. $\frac{9}{20}$ C. $\frac{7}{30}$ D. $\frac{3}{4}$

b. Which of the following is overestimate ?

A. $\frac{8}{7} + \frac{5}{9} = 1\frac{1}{2}$ B. $\frac{4}{7} + \frac{3}{5} = 1$ C. $\frac{1}{6} + \frac{6}{11} = \frac{1}{2}$ D. $\frac{4}{9} + \frac{3}{7} = 1$

c. Equivalent fraction of $\frac{2}{8}$ is ______

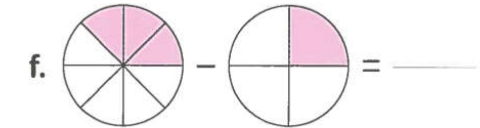
A. $\frac{4}{8}$ B. $\frac{2}{4}$ C. $\frac{1}{4}$ D. $\frac{4}{10}$

d. The smallest like denominator of $\frac{2}{3}$ and $\frac{3}{4}$ is ______

A. 6 B. 8 C. 24 D. 12

e. $1 - \frac{1}{3} - \frac{1}{5} =$ ______

A. $\frac{7}{20}$ B. $\frac{7}{15}$ C. $\frac{12}{17}$ D. $\frac{5}{8}$

f.  = ______

A. $\frac{1}{4}$ B. $\frac{1}{2}$ C. $\frac{1}{8}$ D. $\frac{5}{8}$

g. $\frac{5}{7} - \frac{\square}{\square} = \frac{1}{7}$

A. $\frac{1}{7}$ B. $\frac{4}{7}$ C. $\frac{5}{7}$ D. $\frac{6}{7}$

2. Complete.

a. $\frac{1}{2} + \frac{2}{5} =$ ______

b. Simplest form of $\frac{15}{27}$ is ______

c. Change $\frac{5}{6}$ and $\frac{7}{12}$ into two like denominator fractions ______ , ______

d. $\frac{17}{10} - \frac{4}{10} =$ ______ = ______ $\frac{\square}{\square}$

e. $\frac{8}{32} = \frac{4}{\square}$

f. LCM of the denominators of $\frac{2}{5}$ and $\frac{1}{3}$ is ______

g. $\frac{7}{13} + \frac{2}{13} -$ ______ $= \frac{4}{13}$

h. $\frac{7}{9} - \frac{3}{7} =$ ______





3. Choose the correct answer.

a.  is equivalent to ....

A.    B.   C.   D.

b. $\frac{2}{4}$ is equivalent to ....

A. $\frac{5}{8}-\frac{1}{4}$ B. $\frac{7}{8}-\frac{1}{4}$ C. $\frac{5}{6}-\frac{1}{3}$ D. $1-\frac{5}{8}$

c. $\frac{7}{8}-\frac{2}{3}=$ ....

A. $\frac{5}{5}$ B. $\frac{5}{20}$ C. $\frac{5}{8}$ D. $\frac{5}{24}$

d. $1-\frac{1}{4}-\frac{2}{3}=$ ....

A. $\frac{7}{12}$ B. $\frac{1}{12}$ C. $\frac{1}{2}$ D. $\frac{5}{12}$

e. $\frac{3}{4}+\frac{4}{5}=$ ....

A. $\frac{7}{9}$ B. $\frac{7}{20}$ C. $1\frac{11}{20}$ D. $\frac{12}{20}$

f. $\frac{5}{6}-\frac{1}{3}=$ ....

A. $\frac{4}{3}$ B. $\frac{1}{2}$ C. $\frac{4}{18}$ D. $\frac{4}{6}$

g. $1-$ .... $=\frac{5}{8}$

A. $\frac{5}{8}$ B. $\frac{3}{8}$ C. $\frac{6}{8}$ D. $\frac{8}{7}$



4. Answer the following.

a. Marvina spend $\frac{1}{2}$ of her money to buy candy and $\frac{1}{3}$ of it to buy toys.

What fraction of her money is left ?

....

b. In the school day break, Hany spends $\frac{2}{3}$ of the break in eating and $\frac{1}{5}$ of it to take a drink, then 4 minute left. **What is the break time ?**

....

c. Petra's flower garden consists of $\frac{3}{8}$ cornflowers and $\frac{1}{3}$ poppies. The rest of the garden is filled with roses. **What fraction of the Petra's garden is roses ?**

....

d. **Estimate the sum and the difference using the benchmarks 0 ,** $\frac{1}{2}$ and 1

1. $\frac{7}{8}+\frac{1}{5}=$ ....   2. $\frac{5}{9}+\frac{4}{7}=$ ....



Test on Unit (8)

[A] Choose the correct answer:

(1) $5\frac{3}{7}+4\frac{2}{7}$ = ...

ⓐ $9\frac{5}{14}$ ⓑ $9\frac{5}{7}$ ⓒ $10\frac{5}{7}$ ⓓ $9\frac{1}{7}$

(2) Estimating $13\frac{7}{8}-6\frac{2}{5}$ is ....

ⓐ $6\frac{1}{2}$ ⓑ $8\frac{1}{4}$ ⓒ $7\frac{1}{2}$ ⓓ $8\frac{1}{2}$

(3) Which is the common denominator for $9\frac{18}{27}$ and $4\frac{5}{6}$?

ⓐ 3 ⓑ 6 ⓒ 9 ⓓ 27

(4) If $7\frac{A}{20}$ is a little less than $7\frac{1}{2}$, then A = ...

ⓐ 9 ⓑ 12 ⓒ 11 ⓓ 18

(5) $7\frac{35}{40}-3\frac{4}{5}$ = ...

ⓐ $4\frac{3}{40}$ ⓑ $4\frac{31}{35}$ ⓒ $8\frac{33}{40}$ ⓓ $4\frac{29}{45}$



[B] Complete:

(1) If $B-8\frac{7}{10}=2\frac{3}{10}$, then B = ...

(2) If $V+3\frac{2}{3}=8\frac{1}{6}$, then V = ...

(3) $5\frac{1}{3}+3\frac{4}{7}$ = ...

(4) $9\frac{1}{6}-4\frac{3}{5}$ = ...



[C] Story problems:

(1) A road is 10 km long. If $4\frac{5}{7}$ km is paved. How many kilometers isn't paved?

....

(2) Ahmed spends $1\frac{1}{10}$ hours in studying Science and 20 minutes more in studying Math. How many minutes does he spend to study the two subjects together?

....

....





Unit (8) Assessment

1. Choose the correct answer.

a. $2\frac{3}{5} + 1\frac{4}{5} =$ ....

A. $3\frac{7}{10}$ B. $4\frac{2}{5}$ C. $1\frac{1}{5}$ D. $2\frac{7}{5}$

b. $5\frac{2}{7} + k = 6\frac{5}{7}$, then k = ...

A. $11\frac{7}{7}$ B. $1\frac{3}{7}$ C. $4\frac{3}{7}$ D. $5\frac{1}{7}$

c. If $4\frac{X}{22}$ is slightly greater than $4\frac{1}{2}$, then X can be ....

A. 10 B. 21 C. 5 D. 12

d. Two fractions $3\frac{2}{3}$ and $5\frac{1}{6}$ with like denominators are ....

A. $3\frac{2}{3}$ and $5\frac{1}{6}$ B. $\frac{11}{3}$ and $\frac{31}{3}$ C. $3\frac{4}{6}$ and $5\frac{1}{6}$ D. $3\frac{2}{3}$ and $5\frac{2}{6}$

e. $2\frac{3}{5} +$ .... $= 3\frac{1}{4}$

A. $\frac{13}{20}$ B. $1\frac{1}{4}$ C. $1\frac{4}{5}$ D. $1\frac{2}{5}$

f. $2\frac{1}{3}$ hours = ... minutes

A. 150 B. 120 C. 130 D. 140

g. $\frac{17}{3}$ is equvalent to ....

A. $3\frac{1}{6}$ B. $7\frac{1}{2}$ C. $3\frac{2}{5}$ D. $5\frac{2}{3}$

2. Complete.

a. $3\frac{1}{2} - 2\frac{3}{5} =$ ....

b. $g - 1\frac{3}{4} = 7\frac{3}{44}$, then g = ...

c. $7\frac{2}{5} + 1\frac{1}{4} = 8 + 1 + \frac{1}{4} -$ ....

d. $9\frac{1}{4} -$ .... $= 3\frac{3}{4}$

e. $\frac{3}{4}$ year = ... months

f. 150 seconds = ... minutes

g. $X + 5\frac{1}{2} = 7\frac{3}{4}$, then X = ...

h. $2\frac{b}{9}$ is almost 3 Estimate for b = ...

3. Choose the correct answer.

a. $1\frac{5}{8}+2\frac{7}{12}+\frac{1}{4}=$ ....

A. $3\frac{7}{12}$ B. $4\frac{5}{6}$ C. $4\frac{7}{12}$ D. $4\frac{11}{24}$

b. $2\frac{4}{5}+1\frac{3}{10}-1\frac{1}{2}=$ ....

A. $\frac{6}{5}$ B. $3\frac{2}{5}$ C. $1\frac{7}{10}$ D. $2\frac{3}{5}$

c. $4\frac{3}{5}\neq$ ....

A. $8\frac{6}{10}$ B. $\frac{23}{5}$ C. $4\frac{6}{10}$ D. $3\frac{8}{5}$

d. If $2\frac{2}{3}-h=1$, then h = ...

A. $3\frac{2}{3}$ B. $1\frac{2}{3}$ C. $\frac{2}{3}$ D. 2

e. $5\frac{3}{7}+2\frac{1}{11}$ can estimated as ....

A. 7 B. $7\frac{1}{2}$ C. 8 D. $8\frac{1}{2}$

f. $7\frac{4}{5}-3\frac{1}{2}=$ ....

A. $4\frac{3}{3}$ B. $4\frac{3}{4}$ C. $4\frac{3}{10}$ D. $10\frac{5}{7}$

g. If $9\frac{X}{5}$ is little greater than $9\frac{1}{2}$, then X is estimated as ....

A. 3 B. 5 C. 2 D. 1



4. Answer the following.

a. Marwan studied math for $3\frac{1}{2}$ hours and science for 90 minutes.
How many hours did Marwan study in all ?

....

b. Sameh ate $1\frac{3}{4}$ kg of fruits, Bassem ate $\frac{1}{5}$ kg more than Sameh and Wael ate $\frac{1}{2}$ kg less than Sameh.
How many kg of fruits did the three friends eat together ?

....

c. **Use an area model to add.**

$2\frac{3}{5}+1\frac{1}{2}=$ ....

			+		

d. **find the difference.**

$9\frac{1}{3}-7\frac{1}{2}=$ ....





Q1 : Choose the correct answer :

1- The smallest like denominator of $\frac{5}{6}$ and $\frac{1}{3}$ is ....

a. 18 b. 6 c. 3 d. 2

2- The simplest form of form of $\frac{6}{12}$ is ....

a. $\frac{1}{2}$ b. $\frac{2}{3}$ c. $\frac{5}{6}$ d. $\frac{12}{6}$

3- Estimate the sum of $\frac{1}{6}$ + $\frac{7}{8}$ using benchmarks, ...

a. $\frac{25}{24}$ b. 1 c. $\frac{1}{2}$ d. 0

4- Estimate the difference of $\frac{9}{11}$ - $\frac{2}{5}$ using benchmarks, ...

a. $\frac{7}{6}$ b. $\frac{1}{2}$ c. 0 d. 1

5- The LCM of denominators of $\frac{4}{7}$ and $\frac{2}{5}$ is ....

a. 7 b. 35 c. 5 d. $\frac{6}{35}$

6- $\frac{1}{4}$ + $\frac{3}{16}$ = ...

a. $\frac{7}{16}$ b. 0 c. 16 d. $\frac{4}{20}$

7. $\frac{2}{8}$ + $\frac{6}{8}$ = ...

a. $\frac{4}{6}$ b. $\frac{2}{3}$ c. 1 d. $\frac{6}{8}$

8. $\frac{7}{9}$ - $\frac{3}{9}$ = ...

a. $\frac{5}{9}$ b. $\frac{5}{0}$ c. 1 d. $\frac{10}{9}$

9. $\frac{1}{5}$ + $\frac{2}{3}$ = ...

a. $\frac{13}{15}$ b. $\frac{3}{8}$ c. 0 d. $\frac{1}{2}$

10. ....+ $\frac{5}{8}$ = 1

a. $\frac{4}{8}$ b. $\frac{3}{8}$ c. 0 d. $\frac{1}{2}$

11. .... + $\frac{5}{10}$ = 1

a. $\frac{1}{2}$ b. $\frac{5}{10}$ c. $\frac{4}{8}$ d. all of them

12. 1 - .... = 0

a. $\frac{1}{2}$ b. $\frac{10}{10}$ c. $\frac{2}{3}$ d. 0

13. 1 - .... = 1

a. $\frac{1}{2}$ b. $\frac{10}{10}$ c. $\frac{0}{3}$ d. 1

14. $1 - \frac{3}{5} - \frac{2}{5}$ = ...

a. 0 b. 2 c. $\frac{5}{5}$ d. 1

14. $1 + \frac{3}{5} + \frac{2}{5}$ = ...

a. 0 b. 2 c. $\frac{5}{5}$ d. 1

15. $\frac{2}{5} = \frac{\square}{15}$

a. 0 b. 2 c. 3 d. 6

16. $\frac{1}{\square} = \frac{12}{24}$

a. 0 b. 2 c. 3 d. 1

17. $\frac{1}{\square} = \frac{8}{24}$

a. 0 b. 2 c. 3 d. 1

18. $\frac{8}{9} + \frac{2}{6}$ is about $1\frac{1}{2}$, the estimation is ....

a. overestimate b. underestimate

19. $\frac{1}{8} + \frac{6}{5}$ is about 1 , the estimation is ....

a. overestimate b. underestimate

20. $\frac{5}{9} + \frac{4}{7}$ is about 1 , the estimation is ....

a. overestimate b. underestimate

21. $\frac{2}{3} + \frac{7}{12}$ is estimated as ....

a. $\frac{1}{2} + \frac{1}{2}$ b. $\frac{1}{2} + 1$ c. $0 + \frac{1}{2}$ d. 1 + 1

22. $\frac{8}{9} + \frac{1}{100}$ is estimated as ....

a. $\frac{1}{2} + \frac{1}{2}$　　b. $\frac{1}{2} + 1$　　c. $0 + \frac{1}{2}$　　d. $1 + 0$

23. $2 - \frac{2}{5} - \frac{1}{5}$ = ...

a. $1\frac{2}{5}$　　b. $\frac{2}{5}$　　c. $\frac{2}{3}$　　d. 1

24. $5 + \frac{3}{5} + \frac{2}{5}$ = ...

a. $5\frac{2}{5}$　　b. 6　　c. $\frac{18}{4}$　　d. 4

25 $\frac{2}{3} + \frac{7}{12} = 1 +$ ....

a. $\frac{2}{5}$　　b. $\frac{1}{4}$　　c. $\frac{1}{3}$　　d. $\frac{1}{5}$

26. $\frac{1}{4} + \frac{3}{12} = 1 -$ ....

a. $\frac{1}{2}$　　b. $\frac{1}{4}$　　c. $\frac{1}{3}$　　d. $\frac{1}{5}$

27. $m - \frac{5}{7} = \frac{1}{4}$, then the value of m is ....

a. $\frac{27}{28}$　　b. $\frac{13}{28}$　　c. $\frac{1}{4}$　　d. $\frac{5}{7}$

28. $\frac{7}{14} + e = \frac{1}{2}$, then the value of e is ....

a. $\frac{8}{14}$　　b. $\frac{1}{2}$　　c. $\frac{5}{14}$　　d. $\frac{5}{7}$

29. $\frac{11}{16} - a = \frac{1}{4}$, then the value of a is ....

a. $\frac{8}{16}$　　b. $\frac{7}{16}$　　c. $\frac{10}{12}$　　d. $\frac{6}{6}$

30. $\frac{12}{20}$ is equivalent to ....

a. $\frac{8}{10}$　　b. $\frac{3}{5}$　　c. $\frac{10}{12}$　　d. $\frac{6}{5}$

31. $\frac{25}{8}$ is equivalent to ....

a. $2\frac{1}{8}$　　b. $3\frac{1}{25}$　　c. $3\frac{1}{8}$　　d. $\frac{8}{25}$

32. $3\frac{5}{6}$ is equivalent to ....

a. $2\frac{5}{6}$　　b. $4\frac{1}{25}$　　c. $3\frac{1}{6}$　　d. $\frac{23}{6}$

33. $3\frac{2}{6}$ is equivalent to ....

a. $2\frac{8}{6}$ b. $3\ \frac{1}{6}$ c. $2\ \frac{2}{6}$ d. $\frac{23}{6}$

34. $8\ \frac{8}{8}$ is equivalent to ....

a. $9\frac{5}{6}$ b. $8\ \frac{1}{8}$ c. 81 d. 9

35. $5\ \frac{2}{8}\ +\ 3\frac{6}{8}$ = ...

a. 9 b. $8\ \frac{1}{6}$ c. $8\ \frac{4}{6}$ d. $\frac{23}{6}$

36. $6\ \frac{1}{5}\ -\ 2\frac{3}{5}$ = ...

a. $4\frac{4}{5}$ b. $4\ \frac{2}{5}$ c. $3\ \frac{3}{5}$ d. $\frac{31}{5}$

37. $3\ \frac{1}{8}\ +\ 2\frac{3}{8}$ = ...

a. $5\ \frac{4}{5}$ b. $5\ \frac{1}{2}$ c. $1\ \frac{4}{8}$ d. $1\frac{2}{8}$

38. $9\ \frac{2}{9}\ -\ 3\frac{1}{3}$ = ...

a. $6\frac{2}{3}$ b. $6\ \frac{7}{9}$ c. $6\ \frac{1}{9}$ d. 6

39. $4\ \frac{3}{7}$ + ... = $5\frac{1}{3}$

a. $9\ \frac{4}{21}$ b. $1\ \frac{16}{21}$ c. 1 d. $\frac{19}{21}$

40. $m\ -\ 7\ \frac{2}{12}\ =\ 3\ \frac{1}{4}$, then the value of m is ....

a. $10\ \frac{5}{12}$ b. $3\ \frac{11}{12}$ c. 4 d. $4\ \frac{1}{8}$

41. $a\ +\ 6\ \frac{4}{12}\ =\ 9\ \frac{3}{4}$, then the value of a is ....

a. $3\ \frac{5}{12}$ b. $15\ \frac{7}{12}$ c. 2.5 d. $16\ \frac{1}{12}$

42. $5\ \frac{1}{5}\ -\ e\ =\ 3\frac{3}{5}$, then the value of e is ....

a. $2\ \frac{2}{5}$ b. $1\ \frac{3}{5}$ c. $1\ \frac{4}{5}$ d. $8\ \frac{4}{5}$

43. $\frac{1}{2}$ year = ... Months

a. 5 b. 6 c. 2 d. 1

44. $\frac{1}{6}$ year = ... Months

a. 5 b. 6 c. 2 d. 1

43. $\frac{1}{5}$ hour = ... Minutes

a. 12 b. 7 c. 5 d. 1

44. $1\frac{1}{8}$ day = ... hours

a. 24 b. 8 c. 27 d. 2

45. 90 minutes = ... hours

a. $12\frac{1}{2}$ b. $3\frac{1}{2}$ c. 30 d. $1\frac{1}{2}$

46. 18 months = ... Year

a. $\frac{18}{12}$ b. $1\frac{1}{2}$ c. $\frac{3}{2}$ d. All of them

47. 190 seconds = ... minutes

a. $\frac{190}{24}$ b. $3\frac{1}{6}$ c. 3 d. All of them

48. $4\frac{1}{12}$ years = ... years + ... months

a. 4 , 2 b. 4 , $\frac{1}{12}$ c. 4 , 1 d. 4 , 12

49. $3\frac{1}{2}$ hours = ... hours + ... minutes

a. 3 , 30 b. 3 , $\frac{1}{2}$ c. 3 d. 4 , 2

50. $7\frac{3}{4}$ hours = ... hours + ... minutes

a. 7 , 30 b. 7 , $\frac{1}{2}$ c. 7 , 15 d. 7 , 45

51. the simplest form of $4\frac{2}{10}$ is ....

a. $4\frac{3}{4}$ b. $4\frac{1}{5}$ c. $\frac{42}{10}$ d. $2\frac{3}{4}$

52. $4\frac{2}{10}$ is equivalent to ....

a. $4\frac{20}{100}$ b. $4\frac{1}{5}$ c. $\frac{42}{10}$ d. All of them

53. $8\frac{1}{6} + 3\frac{1}{5} = 9 + 3\frac{1}{5}$ - ....

a. $12\frac{1}{5}$ b. $4\frac{1}{5}$ c. $\frac{5}{6}$ d. $\frac{1}{6}$

54. $8\frac{1}{6} + 3\frac{1}{5} = 9 + 3 + \frac{1}{5}$ - ....

a. $12\frac{1}{5}$ b. $4\frac{1}{5}$ c. $\frac{5}{6}$ d. $\frac{1}{6}$

55. $4\frac{2}{3} + 3\frac{9}{10}$ is estimated as ....

a. $4\frac{1}{2} + 4$ b. $\frac{1}{2} + 1$ c. $4 + \frac{1}{2}$ d. $4\frac{1}{2} + 31$

56. $8\frac{1}{9} + 3\frac{5}{12}$ is estimated as ....

a. $8\frac{1}{2} + 3$ b. $8 + 3\frac{1}{2}$ c. $0 + \frac{1}{2}$ d. $8\frac{1}{2} + 3.5$

57. $8\frac{1}{6} + 3.5 =$ ....

a. $11\frac{2}{3}$ b. $11\frac{1}{6}$ c. $4\frac{2}{3}$ d. 5

58. $7\frac{m}{10}$ is slightly greater than $7\frac{1}{2}$, then m can be ....

a. 11 b. 5 c. 6 d. 1

59. $2\frac{b}{10}$ is almost 3 , then b can be ....

a. 11 b. 9 c. 10 d. All of them

60. $7\frac{5}{d}$ is little less than 8 , then d can be ....

a. 11 b. 9 c. 5 d. 6

61. $7\frac{m}{10}$ is about $7\frac{1}{2}$, then m can be ....

a. 4 b. 6 c. 5 d. Both a,b

62. $3\frac{12}{c}$ is slightly greater than 4 , then c can be ....

a. 11 b. 9 c. 13 d. 12

63. $3\frac{6}{c}$ is nearly $3\frac{1}{2}$, then c can be ....

b. 12 c. 13 d. Both a,c

Q2 : Answer the following :

1. Samira studied MATH for $1\frac{1}{2}$ hours and scince for 40 minutes . How many minutes did Samira study in all ?

2. Remas and Fatma bought pieces choclate , Remas ate $\frac{3}{10}$ of them and fatma ate $\frac{2}{5}$ of then and 12 pieces are left . What is the number of pieces did they buy ?

3. Mohamed bought a book by $\frac{1}{3}$ of his money and a candy by $\frac{2}{7}$ of his money and saved the left money . What fraction of money does Mohamed save ?

4. Yara's garden consists of $\frac{3}{8}$ poppies , $\frac{1}{4}$ roses and flowers in the rest of the garden what fraction of the flowers in the garden ?

5. Besan collected $6\frac{2}{7}$ of honey . She gave his sister Sandy $3\frac{3}{4}$ kg of them . How many kilograms are left ?

6. Yousef spent $\frac{5}{6}$ of his money for buying candy and $\frac{3}{4}$ for buying clothes . Write their fractions with like denominators .

7. Omar had 40 date palm treas for sale at his nursery . He sold $\frac{2}{5}$ of the treas on Saturday . He sold $\frac{1}{4}$ of the remaining treas on Monday . Tuesday , he sold $\frac{1}{2}$ of what was left . How many trees did Omar have remaining to sell on the next day ?

8. MR Mahmoud Elkholy walked $1\frac{1}{2}$ km and his student Ebrahim walked $2\frac{3}{5}$ km more What distance that Ebrahim walked ?

9. Lena ate $1\frac{3}{4}$ kg of fruits , Yasin ate $\frac{1}{5}$ kg more than Lena and Jana ate $\frac{3}{10}$ kg less than Yasin . How mamy kilograms did Jana eat ?

10. Seif studied MATH for $3\frac{1}{4}$ hours and scince for 30 minutes . How many hours did Seif study in all ?

صنعت تلك المذكرة بحب ، مع تمنياتى بالنجاح والتفوق ، لاتنسونا بصالح الدعاء

إن كان من توفيق فمن الله وإن كان من خطأ فمن نفسى ومن الشيطان

Q1 : Choose the correct answer :

1- The smallest like denominator of $\frac{5}{6}$ and $\frac{1}{3}$ is ....

a. 18   **b. 6**   c. 3   d. 2

2- The simplest form of form of $\frac{6}{12}$ is ....

a. $\frac{1}{2}$ b. $\frac{2}{3}$ c. $\frac{5}{6}$ d. $\frac{12}{6}$

3- Estimate the sum of $\frac{1}{6}$ + $\frac{7}{8}$ using benchmarks, ...

a. $\frac{25}{24}$ **b. 1**   c. $\frac{1}{2}$ d. 0

4- Estimate the difference of $\frac{9}{11}$ - $\frac{2}{5}$ using benchmarks, ...

a. $\frac{7}{6}$ **b. $\frac{1}{2}$**   c. 0   d. 1

5- The LCM of denominators of $\frac{4}{7}$ and $\frac{2}{5}$ is ....

a. 7   **b. 35**   c. 5   d. $\frac{6}{35}$

6- $\frac{1}{4}$ + $\frac{3}{16}$ = ...

a. $\frac{7}{16}$ b. 0   c. 16   d. $\frac{4}{20}$

7. $\frac{2}{8}$ + $\frac{6}{8}$ = ...

a. $\frac{4}{6}$ b. $\frac{2}{3}$ **c. 1**   d. $\frac{6}{8}$

8. $\frac{7}{9}$ - $\frac{3}{9}$ = ...

a. $\frac{5}{9}$ b. $\frac{5}{0}$ c. 1   d. $\frac{10}{9}$

9. $\frac{1}{5}$ + $\frac{2}{3}$ = ...

a. $\frac{13}{15}$ b. $\frac{3}{8}$ c. 0   d. $\frac{1}{2}$

10. ....+ $\frac{5}{8}$ = 1

a. $\frac{4}{8}$ **b. $\frac{3}{8}$**   c. 0   d. $\frac{1}{2}$

11. .... + $\frac{5}{10}$ = 1

a. $\frac{1}{2}$ b. $\frac{5}{10}$ c. $\frac{4}{8}$ **d. all of them**

12. $1 - .... = 0$

a. $\frac{1}{2}$ **b. $\frac{10}{10}$** c. $\frac{2}{3}$ d. 0

13. $1 - .... = 1$

a. $\frac{1}{2}$ **b. $\frac{10}{10}$** c. $\frac{0}{3}$ d. 1

14. $1 - \frac{3}{5} - \frac{2}{5}$ = ...

a. 0 b. 2 c. $\frac{5}{5}$ d. 1

14. $1 + \frac{3}{5} + \frac{2}{5}$ = ...

a. 0 **b. 2** c. $\frac{5}{5}$ d. 1

15. $\frac{2}{5} = \frac{\square}{15}$

a. 0 b. 2 c. 3 **d. 6**

16. $\frac{1}{\square} = \frac{12}{24}$

a. 0 **b. 2** c. 3 d. 1

17. $\frac{1}{\square} = \frac{8}{24}$

a. 0 b. 2 **c. 3** d. 1

18. $\frac{8}{9} + \frac{2}{6}$ is about $1\frac{1}{2}$, the estimation is ....

a. overestimate b. underestimate

19. $\frac{1}{8} + \frac{6}{5}$ is about 1 , the estimation is ....

a. overestimate **b. underestimate**

20. $\frac{5}{9} + \frac{4}{7}$ is about 1 , the estimation is ....

a. overestimate **b. underestimate**

21. $\frac{2}{3} + \frac{7}{12}$ is estimated as ....

a. $\frac{1}{2} + \frac{1}{2}$ b. $\frac{1}{2} + 1$ c. $0 + \frac{1}{2}$ d. $1 + 1$

22. $\frac{8}{9} + \frac{1}{100}$ is estimated as ………………….

a. $\frac{1}{2} + \frac{1}{2}$ b. $\frac{1}{2} + 1$ c. $0 + \frac{1}{2}$ **d. $1 + 0$**

23. $2 - \frac{2}{5} - \frac{1}{5}$ = ……………….

a. $1\frac{2}{5}$ b. $\frac{2}{5}$ c. $\frac{2}{3}$ d. 1

24. $5 + \frac{3}{5} + \frac{2}{5}$ = ……………….

a. $5\frac{2}{5}$ **b. 6** c. $\frac{18}{4}$ d. 4

25 $\frac{2}{3} + \frac{7}{12} = 1 +$ …………..

a. $\frac{2}{5}$ **b. $\frac{1}{4}$** c. $\frac{1}{3}$ d. $\frac{1}{5}$

26. $\frac{1}{4} + \frac{3}{12} = 1 -$ …………..

a. $\frac{1}{2}$ b. $\frac{1}{4}$ c. $\frac{1}{3}$ d. $\frac{1}{5}$

27. $m - \frac{5}{7} = \frac{1}{4}$, then the value of m is ………………….

a. $\frac{27}{28}$ b. $\frac{13}{28}$ c. $\frac{1}{4}$ d. $\frac{5}{7}$

28. $\frac{7}{14} + e = \frac{1}{2}$, then the value of e is ………………….

a. $\frac{8}{14}$ **b. $\frac{1}{2}$** c. $\frac{5}{14}$ d. $\frac{5}{7}$

29. $\frac{11}{16} - a = \frac{1}{4}$, then the value of a is ………………….

a. $\frac{8}{16}$ **b. $\frac{7}{16}$** c. $\frac{10}{12}$ d. $\frac{6}{6}$

30. $\frac{12}{20}$ is equivalent to ………………

a. $\frac{8}{10}$ **b. $\frac{3}{5}$** c. $\frac{10}{12}$ d. $\frac{6}{5}$

31. $\frac{25}{8}$ is equivalent to ………………

a. $2\frac{1}{8}$ b. $3\frac{1}{25}$ **c. $3\frac{1}{8}$** d. $\frac{8}{25}$

32. $3\frac{5}{6}$ is equivalent to ………………

a. $2\frac{5}{6}$ b. $4\frac{1}{25}$ c. $3\frac{1}{6}$ **d. $\frac{23}{6}$**

33. $3\frac{2}{6}$ is equivalent to ....

a. $2\frac{8}{6}$ b. $3\frac{1}{6}$ c. $2\frac{2}{6}$ d. $\frac{23}{6}$

34. $8\frac{8}{8}$ is equivalent to ....

a. $9\frac{5}{6}$ b. $8\frac{1}{8}$ c. 81 **d. 9**

35. $5\frac{2}{8} + 3\frac{6}{8}$ = ...

a. 9 b. $8\frac{1}{6}$ c. $8\frac{4}{6}$ d. $\frac{23}{6}$

36. $6\frac{1}{5} - 2\frac{3}{5}$ = ...

a. $4\frac{4}{5}$ b. $4\frac{2}{5}$ **c. $3\frac{3}{5}$** d. $\frac{31}{5}$

37. $3\frac{1}{8} + 2\frac{3}{8}$ = ...

a. $5\frac{4}{5}$ **b. $5\frac{1}{2}$** c. $1\frac{4}{8}$ d. $1\frac{2}{8}$

38. $9\frac{2}{9} - 3\frac{1}{3}$ = ...

a. $6\frac{2}{3}$ b. $6\frac{7}{9}$ c. $6\frac{1}{9}$ **d. 6**

39. $4\frac{3}{7}$ + ... = $5\frac{1}{3}$

a. $9\frac{4}{21}$ b. $1\frac{16}{21}$ c. 1 **d. $\frac{19}{21}$**

40. $m - 7\frac{2}{12} = 3\frac{1}{4}$, then the value of m is ....

a. $10\frac{5}{12}$ b. $3\frac{11}{12}$ c. 4 d. $4\frac{1}{8}$

41. $a + 6\frac{4}{12} = 9\frac{3}{4}$, then the value of a is ....

a. $3\frac{5}{12}$ b. $15\frac{7}{12}$ c. 2.5 d. $16\frac{1}{12}$

42. $5\frac{1}{5} - e = 3\frac{3}{5}$, then the value of e is ....

a. $2\frac{2}{5}$ **b. $1\frac{3}{5}$** c. $1\frac{4}{5}$ d. $8\frac{4}{5}$

43. $\frac{1}{2}$ year = ... Months

a. 5 **b. 6** c. 2 d. 1

44. $\frac{1}{6}$ year = ... Months

a. 5 b. 6 **c. 2** d. 1

43. $\frac{1}{5}$ hour = ... Minutes

a. 12 b. 7 c. 5 d. 1

44. $1\frac{1}{8}$ day = ... hours

a. 24 b. 8 **c. 27** d. 2

45. 90 minutes = ... hours

a. $12\frac{1}{2}$ b. $3\frac{1}{2}$ c. 30 **d. $1\frac{1}{2}$**

46. 18 months = ... Year

a. $\frac{18}{12}$ b. $1\frac{1}{2}$ c. $\frac{3}{2}$ **d. All of them**

47. 190 seconds = ... minutes

a. $\frac{190}{24}$ **b. $3\frac{1}{6}$** c. 3 d. All of them

48. $4\frac{1}{12}$ years = ... years + ... months

a. 4 , 2 b. 4 , $\frac{1}{12}$ **c. 4 , 1** d. 4 , 12

49. $3\frac{1}{2}$ hours = ... hours + ... minutes

a. 3 , 30 b. 3 , $\frac{1}{2}$ c. 3 d. 4 , 2

50. $7\frac{3}{4}$ hours = ... hours + ... minutes

a. 7 , 30 b. 7 , $\frac{1}{2}$ c. 7 , 15 **d. 7 , 45**

51. the simplest form of $4\frac{2}{10}$ is ....

a. $4\frac{3}{4}$ **b. $4\frac{1}{5}$** c. $\frac{42}{10}$ d. $2\frac{3}{4}$

52. $4\frac{2}{10}$ is equivalent to ....

a. $4\frac{20}{100}$ b. $4\frac{1}{5}$ c. $\frac{42}{10}$ **d. All of them**

53. $8\frac{1}{6} + 3\frac{1}{5} = 9 + 3\frac{1}{5}$ - ....

a. $12\frac{1}{5}$ b. $4\frac{1}{5}$ c. $\frac{5}{6}$ d. $\frac{1}{6}$

54. $8\frac{1}{6} + 3\frac{1}{5} = 9 + 3 + \frac{1}{5}$ - ....

a. $12\frac{1}{5}$ b. $4\frac{1}{5}$ c. $\frac{5}{6}$ d. $\frac{1}{6}$

55. $4\frac{2}{3} + 3\frac{9}{10}$ is estimated as ....

a. $4\frac{1}{2} + 4$ b. $\frac{1}{2} + 1$ c. $4 + \frac{1}{2}$ d. $4\frac{1}{2} + 31$

56. $8\frac{1}{9} + 3\frac{5}{12}$ is estimated as ....

a. $8\frac{1}{2} + 3$ b. $8 + 3\frac{1}{2}$ c. $0 + \frac{1}{2}$ d. $8\frac{1}{2} + 3.5$

57. $8\frac{1}{6} + 3.5 =$ ....

a. $11\frac{2}{3}$ b. $11\frac{1}{6}$ c. $4\frac{2}{3}$ d. 5

58. $7\frac{m}{10}$ is slightly greater than $7\frac{1}{2}$, then m can be ....

a. 11 b. 5 c. 6 d. 1

59. $2\frac{b}{10}$ is almost 3, then b can be ....

a. 11 b. 9 c. 10 d. All of them

60. $7\frac{5}{d}$ is little less than 8, then d can be ....

a. 11 b. 9 c. 5 d. 6

61. $7\frac{m}{10}$ is about $7\frac{1}{2}$, then m can be ....

a. 4 b. 6 c. 5 d. Both a,b

62. $3\frac{12}{c}$ is slightly greater than 4, then c can be ....

a. 11 b. 9 c. 13 d. 12

63. $3\frac{6}{c}$ is nearly $3\frac{1}{2}$, then c can be ....

b. 12 c. 13 d. Both a,c

Q2 : Answer the following :

1. Samira studied MATH for $1\frac{1}{2}$ hours and scince for 40 minutes . How many minutes did Samira study in all ?

$1\frac{1}{2}$ x 60 = 90 min \\ 90 + 40 = 130 min

2. Remas and Fatma bought pieces choclate , Remas ate $\frac{3}{10}$ of them and fatma ate $\frac{2}{5}$ of them and 12 pieces are left . What is the number of pieces did they buy ?

$\frac{3}{10} + \frac{2}{5} = \frac{7}{10}$ \\ $1 \; \frac{7}{10} = \frac{3}{10}$ \\ $\frac{3}{10} = \frac{12}{60}$ \\ 60 pieces

3. Mohamed bought a book by $\frac{1}{3}$ of his money and a candy by $\frac{2}{7}$ of his money and saved the left money . What fraction of money does Mohamed save ?

$\frac{1}{3} + \frac{2}{7} = \frac{13}{21}$ \\ $1 - \frac{13}{21} = \frac{8}{21}$ of his money

4. Yara's garden consists of $\frac{3}{8}$ poppies , $\frac{1}{4}$ roses and flowers in the rest of the garden what fraction of the flowers in the garden ?

$\frac{3}{8} + \frac{1}{4} = \frac{5}{8}$ \\ $1 \; \frac{5}{8} = \frac{3}{8}$

5. Besan collected $6\frac{2}{7}$ of honey . She gave his sister Sandy $3\frac{3}{4}$ kg of them . How many kilograms are left ?

$6\frac{2}{7} + 3\frac{3}{4} = 2\frac{15}{28}$

6. Yousef spent $\frac{5}{6}$ of his money for buying candy and $\frac{3}{4}$ for buying clothes . Write their fractions with like denominators .

$\frac{10}{12}$, $\frac{9}{12}$

7. Omar had 40 date palm treas for sale at his nursery . He sold $\frac{2}{5}$ of the treas on Saturday . He sold $\frac{1}{4}$ of the remaining treas on Monday . Tuesday , he sold $\frac{1}{2}$ of what was left . How many trees did Omar have remaining to sell on the next day ?

on Saturday : $\frac{2}{5} = \frac{\square}{40}$, he sold 16 trees \\ the left are 40 - 16 = 24 trees

on Monday : $\frac{1}{4} = \frac{\square}{24}$, he sold 6 trees \\ the left are 24 - 6 = 18 trees

on Tuesday : $\frac{1}{2} = \frac{\square}{18}$, he sold 9 trees \\ the left are 18 - 9 = 9 trees

8. MR Mahmoud Elkholy walked $1\frac{1}{2}$ km and his student Ebrahim walked $2\frac{3}{5}$ km more What distance that Ebrahim walked ?

$1\frac{1}{2} + 2\frac{3}{5} = 4\frac{1}{10}$ km

9. Lena ate $1\frac{3}{4}$ kg of fruits , Yasin ate $\frac{1}{5}$ kg more than Lena and Jana ate $\frac{3}{10}$ kg less than Yasin . How mamy kilograms did Jana eat ?

yasin = $1\frac{3}{4} + \frac{1}{5} = 1\frac{19}{20}$ kg

Jana = $1\frac{19}{20} - \frac{3}{10} = 1\frac{13}{20}$ kg

10. Seif studied MATH for $3\frac{1}{4}$ hours and scince for 30 minutes . How many hours did Seif study in all ?

$3\frac{1}{4} + \frac{1}{2} = 3\frac{3}{4}$ hours

Prim 5
mathematics department

date:..

Revision Sheet 1

➢ **Choose :**

a) $3\frac{2}{5} =$ .... ($\frac{2}{5}$ - $\frac{2}{15}$ - $\frac{17}{5}$)

b) $\frac{3}{10}$ is .... (proper fraction = improper fraction –mixed number)

c) $\frac{7}{9} = \frac{\quad}{27}$ (28 - 21 – 35)

d) $5\frac{2}{3} = 4$ — ($\frac{3}{3}$ - $\frac{2}{5}$ - $\frac{5}{3}$)

e) $1\frac{1}{4} + \frac{3}{4} =$ .... ($\frac{3}{4}$ – 2 - $1\frac{3}{4}$)

➢ **Complete :**

a) Simplest form of $6\frac{9}{21} =$ ....

b) Change $\frac{3}{4}$, $\frac{9}{10}$ into two like denominator fraction

.... , ...

c) $4\frac{5}{6} - 1\frac{3}{6} =$ .... (simplest form)

d) $5\frac{1}{7}$ is estimated to ....

date:..

e) $\frac{3}{9} + \frac{3}{6} =$

....

....

- ***Hana bought $\frac{8}{9}$ kg of nuts . she uses $\frac{3}{4}$ kg of it to make cupcakes. How many kilograms of nuts are left ?***

....

....

....

....

....

Good luck

